

DAIHAN Scientific

Incubator

NEW



General Low Temp-Mini
"ThermoStable™ IC-20"

NEW



CO₂ Incubator
"ICA"

Smart-Lab™
Class-I Medical Device



General Gravity-air
"ThermoStable™ SIG-105"

Class-I Medical Device



Low Temp(B.O.D) Incubator
"ThermoStable™ IR-250"



Shaking Incubator
"ThermoStable™ IS-30"



Multi-room
Incubator
"WIM-4"



WiRe™ App Service

Controlled by Smart-Phone

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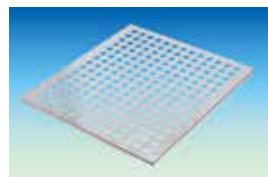
DAIHAN® Air-jacketed CO₂ Incubator "ICA", 101 · 150 Lit, 0~20% CO₂, Up to 60 °C, ±0.1 °C **NEW**
 With Precision CO₂ Sensor, UV Lamp 254nm, Microprocessor PID Control, Fan Forced-Convection, 2 Shelf Included, CO₂ 인큐베이터



Air-jacketed CO₂ Incubator "ICA"



Tempered Safety Inner Glass Door & Enhanced Door Packing



(1) Perforated STS Shelf (Included)



(2) UV Lamp



(3) Regulator, Single-stage

- Made in Korea ■ 2-Year Warranty
- Precise CO₂ Sensor in Stable & Durable Housing, CO₂ Range 0~20%
 - Dual Wavelength Detection, NDIR(Non Dispersive Infra-red) Sensor
 - Automatic Temperature Compensation and Auto Zero Calibration.
- * Ideal for Medicine, Biochemistry and Agricultural Science Research, Industrial Production Departments of Biological Cells, Tissues, Bacterial Culture, etc.
- * All Seamless Stainless-steel Interior for Corrosion Resistance and Decontamination
- * Tempered Safety Inner Glass Door for easy Sample View without Door Opening
- * Enhanced Door Packing to Keep Excellent Temp. & CO₂ Uniformity
- * Air Filtration System(0.3µm HEPA Filter) Minimizes Contamination, Efficiency up to 99.97%.
- * Microprocessor PID Control : Temp(~60°C), Timer, Alarm, Auto-tuning
- * High-Quality LCD Display with Back-Light Function
- * 10 Steps Programmable : Temperature Control and 999 Cycle 10 Steps.
- * Detachable Shelf Frame : Adjustable Shelf
- * Including Water Container, and 2 Stainless-steel Perforated Shelf

Specifications & Ordering information

Spec.	Model	"ICA-100" Max. Capa. 101Lit	"ICA-150" Max. Capa. 150Lit
Capacity		101 Lit	150 Lit
Heating Mechanism		Air-jacket	
CO ₂ Sensor		Digital Signal Processing NDIR Sensor	
Temp Range & Accuracy		Room Temp + 5 °C ~ 60 °C, Accuracy ± 0.1 °C at 20 ~ 25 °C	
CO ₂ Range & Accuracy		0 ~ 20% CO ₂ Concentration, Accuracy ± 0.1% at 5%	
Heat up Time (to 37 °C)		30 min to 37 °C	
CO ₂ Concentration Time (to 5%)		25 min to 5%	
Heating Power		300 W	570 W
CO ₂ Outlet		1 kg/cm ³	
UV Lamp		254 nm × 1ea	
Controller		Programmable Microprocessor Digital PID Controller with LCD Back Light	
Shelf (Included)		2 Stainless-steel Perforated Shelf	
Circulation		Circulation Fan with HEPA Filter(0.3µm)	
Safety		Temp & CO ₂ Alarm, Over Temp Protector, Sensor Error Display, Leakage Breaker	
Material		Interior : Stainless-steel Polished, Exterior : Stainless-steel Hair Lined	
Door		Interior : Tempered Safety Glass Door, Exterior : Magnetic Packing Door	
Dimension (w×d×h) & Weight	Interior	450 × 450 × h500 mm	495 × 515 × h600 mm
	Exterior	600 × 600 × h600 mm, 65 kg	660 × 645 × h1010 mm, 77 kg
	Packing	760 × 800 × h1120 mm, 80 kg	730 × 810 × h1130 mm, 92 kg
Power Consumption		340 W	610 W
Electric Reqts.		110V, 60Hz or 220V, 50/60Hz, 1 Phase	
Cat. No.	220V	DH.Inc8001	DH.Inc8002
	110V	DH.Inc8011	DH.Inc8012
Price, Each. ₩			

* Other Specifications are available upon Customer's Request.

※ 운임 별도!

Spare Accessory

- DH.IncA1001 (1) Perforated Shelf, STS, for "ICA-100", w440 × d400 mm
 DH.IncA1002 , for "ICA-150", w485 × d445 mm
 DH.IncA1005 (2) UV Lamp 254 nm, ϕ 30 × 205 mm, for "ICA"

Ea. Price, ₩

Optional Accessory

- H11.801.10M (3) Regulator, Single-stage, 150psi, Air, CO₂, Argon, Nitrogen, Helium

Ea. Price, ₩

Air-jacketed CO₂ Incubator with Validation (IQ, OQ) Service

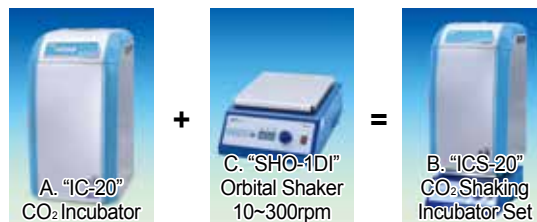
- DH.IncA5001 Validation Service(IQ, OQ), with "ICA-100"
 DH.IncA5002 , with "ICA-150"

Set. Price, ₩

DAIHAN® 4~45°C & 0~10% CO₂ 20Lit Mini CO₂ Incubator & CO₂ Shaking Incubator, "ThermoStable™ IC-20 & ICS-20"
Programmable PID Controlled 0.1°C & 0.1%, Compact Design for Saving Space/Money, Ideal for Cell/Tissue Culture **NEW**
 With Cooling/Heating system of Peltier Element/Auto-Tuning/Safety Device, 저온 미니 CO₂ 배양기 & CO₂ 진탕 배양기



A. 20Lit Mini CO₂ Incubator "ThermoStable™ IC-20"
 Including CO₂ Gas Cylinder & Regulator



Figure; Assembly CO₂ Shaking Incubator
 You can easily connect the Incubator & Shaker



B. "ICS-20" CO₂ Shaking Incubator Set



C. "SHO-1DI" Separable Orbital Shaker
 ; It can be Used Individually and Be Accepted

A. Standard CO₂ Incubator "ThermoStable™ IC-20"

Including CO₂ Regulator & CO₂ Aluminum Cylinder

B. Assembly CO₂ Shaking Incubator Package Set "ThermoStable™ ICS-20"

= Standard CO₂ Incubator "IC-20" + Orbital Shaker "SHO-1DI"

C. Multiuse Digital Orbital Motion Shaker "SHO-1DI" : Can Be Used Individually.

"SHO-1DI" is same with existing Orbital Shaker "SHO-1D" except Platform, and can be Accepted Optional Various Platforms ; See the Shaker Section

■ Made in Korea ■ PL(Product Liability) Insurance ■ 2-Year Warranty

■ Applications : Cell/Tissue Culture & Transfer, Embryo/Microorganism Culture

■ NDIR CO₂ Sensor : Dual Wavelength Type
 Rapid Initial Response Time, not Affected by User Environment

■ ABS-Resin Chamber & Housing : Light-weight/Compact Design
 Good for Money & Space Saving and Personal Use.

■ Certificate & Traceability : Controlled by Serial Number, Certificate, Delivery-Information, and Traceable Data Base System.

* Cooling/Heating System of PELTIER ELEMENT :

- Cooling and Heating by using Thermoelectric Semiconductor Element
- Minimizes Noise(<20dB) and Power Consumption

* Auto-Tuning : Rapid Response and High Stability According to the Thermal Properties and the Rate of Thermal Response of the Object

* Safety Device : Over Temperature & Over Current Protection, Sensor Error Detection

* 4-Connection Device to Join a Shaker "SHO-1DI" in the Bottom outside of the CO₂ Incubator "IC-20"

Specifications & Ordering Information

Spec.	Model	A. CO ₂ Standard Incubator "ThermoStable™ IC-20"	B. CO ₂ Shaking Incubator Set "ThermoStable™ ICS-20"
Capacity (Lit)		20Lit Working Chamber	
Temp. Range		4 ~ 45°C, 0.1°C; Digital PID Control	
Accuracy		± 0.2°C (No Load)	
Uniformity		± 0.2°C (at 37°C)	
CO ₂ Range & Control		0 ~ 10%, 0.1% ; NDIR CO ₂ Sensor	
Cooling/Heating		Peltier Element Module	
Air Flow-type		Gravity Flow Circulation	
1 Shelf and 3 Location Brackets		1 Perforated ABS Shelf(w210×d230×Thick 8mm) included Adjustable Shelf Location Height of 3-Stage	
Condensate Drain		Natural Evaporation	
Incubator Material		"ABS-Resin" Chamber & Housing, Except Shaking Base	
Incubator Dimension	Interior	w213×d265×h360mm Chamber Only	
	Exterior	w280×d330×h510mm	w280×d330×h670mm; Including Shaking Base
C. SHAKING-Base; Connecting the Multiuse Shaking "SHO-1DI"			
- Motion & Speed		- Orbital, 10 ~ 300rpm, 8mm Stroke	
- Controller & Display		- Programmable Digital Feedback, LCD	
- Timer & Alarm		- 99hr 59min with ∞ Run, Error Status & Time End	
- Motor & Max-Load		- Brushless DC Motor, Max-Load 10kg	
- Safety Circuit		- Overload Protector of Motor	
- Material		- Powder Coated Steel Body	
- Size & Weight		- w260×d330×h140mm, 14kg	
Net Weight (kg)		10kg	10kg + 14kg Shaking Base ("SHO-1DI") = 24kg
Power Consumption		56W	56W + 40W (Shaking)
Electric Reqts.		Free Voltage; 1Phase, AC90-240V, 50/60Hz	
Cat. No.	230V	DH.IncC020	DH.IncCS020
	120V	DH.IncC020.1	DH.IncCS020.1
Price, Set. ₩			

C. SHAKING-Base; Orbital Shaker

DH.SHO01DI Shaker "SHO-1DI", 230V
 DH.SHO01DI.1 , 120V

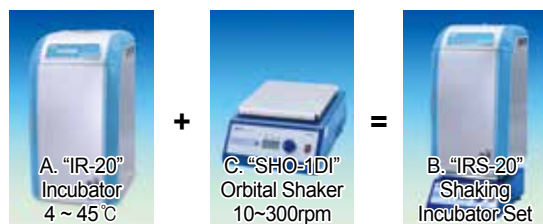
Ea. Price, ₩

※ Note! Details of Optional Various Platforms : See The "Shaker" Section

DAIHAN® 4~45 °C 20 Lit Mini-Low Temperature Incubator & Shaking Incubator, "ThermoStable™ IR-20 & IRS-20" **NEW**
 2-Step Programmable PID Controlled 0.1 °C, Compact Design for Saving Space/Money, Ideal for Culture & Storage of Microorganism/Clone
 With Cooling/Heating system of Peltier Element/Auto-Tuning/Safety Device, 저온 미니-배양기&진탕 배양기, 20Lit, 4~45 °C/0.1 °C



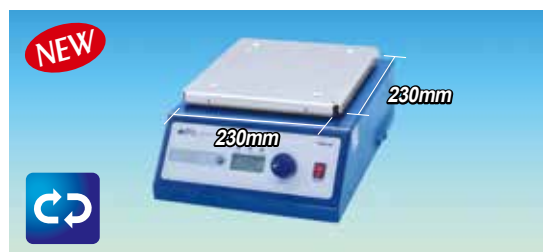
A. 20Lit Mini-Low Temp Incubator "ThermoStable™ IR-20"



*Figure; Assembly Shaking Incubator
 You can easily connect the Incubator & Shaker*



B. "IRS-20" Low Temp. Shaking Incubator Set



C. "SHO-1DI" Separable Orbital Shaker

; It can be Used Individually and Be Accepted

A. Standard Incubator "ThermoStable™ IR-20"

B. Assembly Shaking Incubator Package Set

"ThermoStable™ IRS-20" = "IR-20" Incubator + Orbital Shaker "SHO-1DI"

C. Multiuse Digital Orbital Motion Shaker "SHO-1DI" : Can be Used Individually.

It is same with existing Orbital Shaker "SHO-1D" except Platform and The Shaker "SHO-1DI" can be Accepted Optional Various Platforms; See "Shakers" Section

- Made in Korea ■ PL(Product Liability) Insurance ■ 2-Year Warranty
- Applications Microorganism / Clone Culture & Storage, Reaction Experiment of Enzyme Immunity & Bacteriophage in Vitro Packaging, DNA Ligation, etc.
- 2-Step Temperature Control(PID Micro Processor) ; With 2-Step Setting Temp. Microorganism is Cultivated and Preserved by One Time(Setting time 99 hours)
- ABS-Resin Chamber & Housing; Light-weight / Compact Design Good for Money & Space Saving and Personal Use.
- Certificate & Traceability : Controlled by Serial Number, Certificate, Delivery-Information, and Traceable Data Base System.

* Cooling / Heating System of PELTIER ELEMENT ;

- Cooling and Heating by using Thermoelectric Semiconductor Element
- Minimizes Noise (<20dB) and Power Consumption

* Auto Tuning : Rapid Response and High Stability According to the Thermal Properties and the Rate of Thermal Response of the Object

* Safety Device : Over Temperature & Over Current Protection, Sensor Error Detection

* There are 4-Connection Device to Join a Shaker "SHO-1DI" in the Bottom outside of the Incubator "IR-20"

Specifications & Ordering Information

Spec.	Model	A. Standard Incubator "ThermoStable™ IR-20"	B. Shaking Incubator Set "ThermoStable™ IRS-20"
Capacity (Lit)		20Lit Working Chamber	
Temp. Range		4 °C ~ 45 °C, 0.1 °C; Digital PID Control	
Accuracy		± 0.2 °C (No Load)	
Uniformity		± 0.2 °C (at 37 °C)	
Cooling / Heating		Peltier Element Module	
2-Step Operation		Ideal for Cultivation and Preservation	
Air Flow-type		Gravity Flow Circulation	
1 Shelf and 3 Location Brackets		1 Perforated ABS Shelf(w210×d230×Thick 8mm) included Adjustable Shelf Location Height of 3-Stage	
Condensate Drain		Natural Evaporation	
Incubator Material		"ABS-Resin" Chamber & Housing, Except Shaking Base	
Incubator Dimension	Interior	w213×d265×h360mm Chamber Only	
	Exterior	w280×d330×h510mm	w280×d330×h670mm; Including Shaking Base
C. SHAKING-Base; Connecting the Multiuse Shaking "SHO-1DI"			
- Motion&Speed		-	- Orbital, 10 ~ 300rpm, 15mm Stroke
- Controller&Display			- Programmable Digital Feedback, LCD
- Timer&Alarm			- 99hr 59min with ∞ Run, Error Status & Time End
- Motor&Max-Load			- Brushless DC Motor, Max-Load 10kg
- Safety Circuit			- Overload Protector of Motor
- Material			- Powder Coated Steel Body
- Size&Weight			- w260×d330×h140mm, 14kg
Net Weight (kg)		7kg	7kg + 14kg Shaking Base ("SSO-1DI") = 21kg
Packing Size & Weight		9kg	25kg
Power Consumption		56W	56W + 40W (Shaking)
Electric Reqts.		Free Voltage; 1Phase, AC90-240V, 50 / 60Hz	
Cat. No.	230V	DH.IncR020	DH.IncRS020
	120V	DH.IncR020.1	DH.IncRS020.1
Price, Set. ₩			

C. SHAKING-Base; Orbital Shaker

DH.SHO01DI Shaker "SHO-1DI", 230V
 DH.SHO01DI.1 , 120V

Ea. Price, ₩

※ Note! Details of Optional Various Platforms : See The "Shaker" Section

Maximum Convenience by Advanced Digital Technology

Features of DAIHAN Incubator



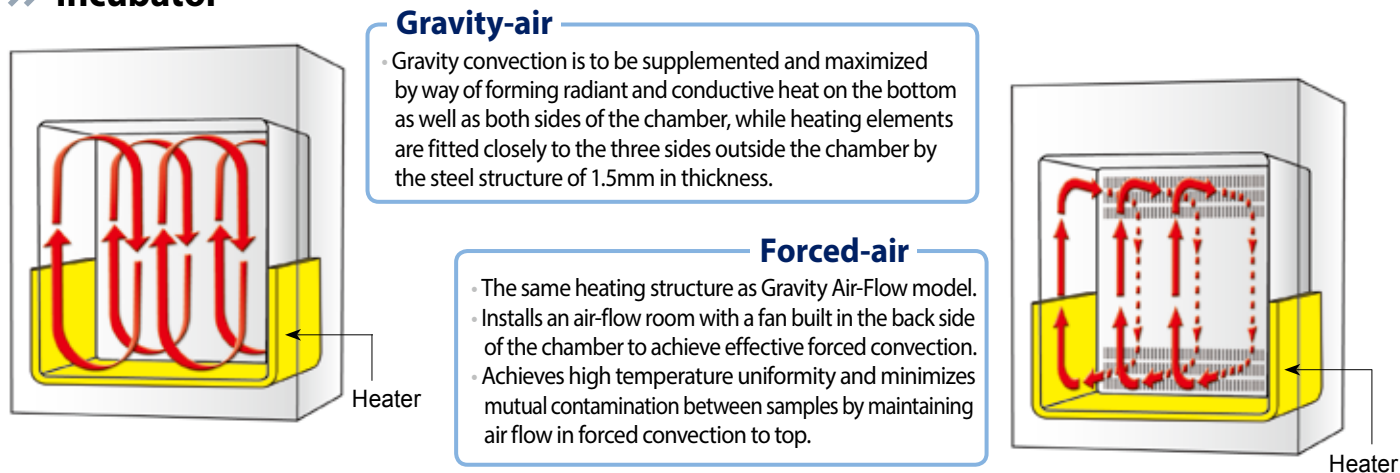
High Performance Heating Mechanism of DAIHAN accomplishing world's best temperature accuracy and uniformity

The new types of Incubator of DAIHAN are outfitted with high performance heating mechanism that is optimized respectively for capacity of chamber, power of heating element and air circulation type (Gravity Convection or Forced Convection).

The temperature displayed on the controller is accurately consistent with the actual temperature in the very center of the chamber or the average temperature in the entire area of the chamber, which maintains precisely within fluctuation specification. In addition, the temperature in the entire area of the chamber shows a very high stability keeping within a very slight variation specification in terms of temperature uniformity. Simultaneously, through the optimization of Fuzzy-PID controller, the 'heat-up time' to reach the Set Temperature after operating and the 'recovery time' to get back to the set temperature after opening and closing of the door are very short.

The newly developed high performance heating mechanism has achieved high degree of temperature accuracy and uniformity in the chamber. This is achieved by the heating elements installed on three sides - that is, the left, right and bottom parts of a chamber - which directly heat the stainless-steel chamber. This either enhances its material thermal conductivity to maximum (in case of the Incubator) or the heated air from the pre-heating zone in air-jacket type that is built in the three sides outside a chamber circulates first (in case of the Oven).

» Incubator



■ High Performance Heating Mechanism

The world's best performance and quality coming true via innovative heating mechanism !!

» Minimum

Fluctuation !

Minimization of Fluctuation in Temperature

Variation !

Minimization of spatial variation in temperature inside the chamber

Heat-up Time !

Minimization of reaching the set temperature

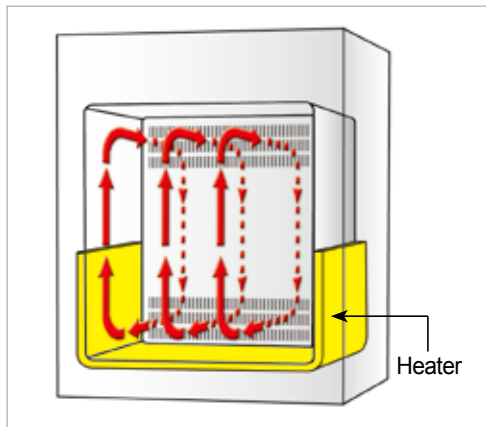
Overshoot !

Minimization of overshooting at the time of reaching the set temperature

DAIHAN® Forced-air Incubator “ThermoStable™ IF”, **Class-I Medical Device(NIDS)**, 50 · 105 · 155 Lit
With 2 Wire Shelf/Digital PID Control/Jog-Dial & Push Button/Digital LCD/Backlight/Certi. & Traceability, up to 70℃, $\pm 0.2^\circ\text{C}$
강제 순환식 배양기/인큐베이터, 디지털 퍼지 컨트롤, 우수한 온도균일성



“ThermoStable™ IF-105”, Forced-air Incubator



3-Side Heating Zone : The Best Temp. Uniformity & Accuracy by High Performance Heating Mechanism.

- Made in Korea ■ UL / CUL Certified ■ CE Certified
- with Certificate & Traceability : Controlled by Serial Number, Certificate, Delivery-information, and Traceable Data Base System
- Optimized Air Flow by Forced-air Mechanism
- 3-Side Heating Mechanism : The Best Temp. Uniformity & Accuracy by High Performance Heating Mechanism
- Patented Jog-Dial Control System
- GD(Good Design)-mark ■ PL(Product Liability) Insurance
- * Various Application : Microorganism Culture, Animal & Plant Cell Culture, Constant Temp., Germination, and so on
- * Optimized Air Flow by Forced-air Mechanism
- * Digital PID Control System Implementing Superior Temperature Accuracy
- * Alarm Function : Error status and Timer-end
- * RS232C Interface for Monitoring and Controlling with PC
- * Ambient to 70℃ of Temp. Range, Fluctuation of $\pm 0.2^\circ\text{C}$ at 37℃, $\pm 0.3^\circ\text{C}$ at 50℃
- * Storage Function of Temperature and Timer setting values
- * Locking Mode Supported for Experimental Safety (Input to Jog-Dial can be disabled)
- * Corrosion Resistant 304 Stainless-steel Chamber
- * Incubator Temperature & Incubator Current Protection, Sensor Error Detection

Specification

Spec.		Model	ThermoStable™ IF-50 Max. Capa. 50Lit	ThermoStable™ IF-105 Max. Capa. 105Lit	ThermoStable™ IF-155 Max. Capa. 155Lit
Capacity			50 Lit	105 Lit	155 Lit
Dimension (w×d×h)	Interior (mm)	370×350×419	485×410×533	550×475×600	
	Exterior (mm)	518×637×700	635×695×841	700×760×906	
Heater Power			200W	300W	400W
Temp.	Range	Room Temp. +5℃ to 70℃			
	Fluctuation	± 0.2℃ at 37℃, ± 0.3℃ at 50℃			
	Variation	± 0.5℃ at 37℃, ± 0.9℃ at 50℃	± 0.4℃ at 37℃, ± 0.7℃ at 50℃		
	Sensor	PT 100			
Control Resolution			±0.1℃		
Heat-up Time			17 min. to 37℃, 28 min. to 50℃	17 min. to 37℃, 30 min. to 50℃	
Recovery Time (Door open 30sec)			3 min. to 37℃, 4 min. to 50℃		
Controller			Digital PID Control by Advanced Microprocessor Jog-Dial with Push Button		
RS232 Port			Available to connect with PC		
Display			Digital LCD with Back Light		
Timer			99hr 59 min (delay/continuous function)		
Material	Internal	Stainless-steel (#304)			
	External	Powder Coated steel			
	Inner Door	Inner Tempered Glass Door			
Shelf			2ea of PE-coated steel Wire Shelf included, Load per Shelf : 16 kg		
Ventilation			1ea of Ventilation hole with Stainless-steel Cap, Hole Diameter 40mm		
Circulation			Forced-air Type		
Safety device			Over Temp. and Over Current Protector, Sensor Error Detector		
Others			UL/CUL Certified, CE Certified, GD-mark Storage Function(Temp. and Time) Locking Mode(Jog-Dial Input Disabled) Alarm (Error Status and Timer-end)		
Net Weight (kg)			46	66	81
Packing Size (w×d×h) (mm)			628×752×775	710×731×1,018	731×810×1,018
Shipping Weight (kg)			58	74	92
Power Consumption			216.3 W	302.9 W	438.1 W
Energy Consumption, at 37℃ , at 50℃			28 Wh	43 Wh	58 Wh
			84 Wh	129 Wh	145 Wh
Electrical Repts.			120V, 60Hz or 230V, 50/60Hz		

* Other Specifications are available upon Customer's Request.

<Continued On Next Page>

Cat. No	Description	Articles
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<Continued From...DAIHAN® Forced-air Incubator "ThermoStable™ IF">

※ 운임 약 ₩ 25,000 별도!

Ordering Information

DH.WIF03050	Incubator, Forced, 230V, 50 Lit, "ThermoStable IF-50"
DH.WIF03105	, 105 Lit, "ThermoStable IF-105"
DH.WIF03155	, 155 Lit, "ThermoStable IF-155"
DH.WIF04050	Incubator, Forced, 120V, 50 Lit, "ThermoStable IF-50"
DH.WIF04105	, 105 Lit, "ThermoStable IF-105"
DH.WIF04155	, 155 Lit, "ThermoStable IF-155"

Ea. Price, ₩



"ThermoStable IF-105", Forced-air Incubator

Spare PE-coated Steel Wire Shelf

DH.WIG11050	Wire Shelf, PE-coated Steel, with 2 Brackets, for 50 Lit, "IGS050", w340 × d310mm
DH.WIG11105	Wire Shelf, PE-coated Steel, with 2 Brackets, for 105 Lit, "IGS105", w455 × d375mm
DH.WIG11155	Wire Shelf, PE-coated Steel, with 2 Brackets, for 155 Lit, "IGS155", w520 × d440mm

Ea. Price, ₩

Optional Stainless-steel Wire Shelf

DH.WON11050	Wire Shelf, Stainless-steel, with 2 Brackets, for 50 Lit, "ONS050", w340 × d310mm
DH.WON11105	Wire Shelf, Stainless-steel, with 2 Brackets, for 105 Lit, "ONS105", w455 × d375mm
DH.WON11155	Wire Shelf, Stainless-steel, with 2 Brackets, for 155 Lit/305Lit, "ONS155", w520 × d440mm

Ea. Price, ₩

Forced Convection Incubator with Validation (IQ, OQ) Service

DH.WIF31050	Validation Service(IQ, OQ), with "ThermoStable IF-50", "IFV050"
DH.WIF31105	, with "ThermoStable IF-105", "IFV105"
DH.WIF31155	, with "ThermoStable IF-155", "IFV155"

Ea. Price, ₩

» New Jog-Dial Controller

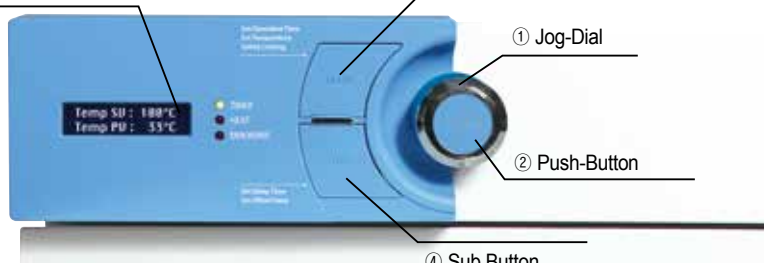
⑤ Digital LCD with Back-light Function

③ Main Button

① Jog-Dial

② Push-Button

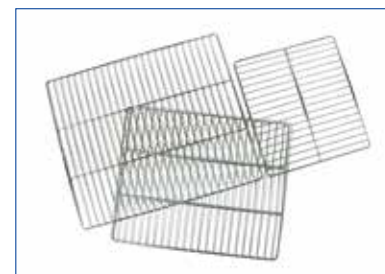
④ Sub Button



- Provides the user interface with an ergonomic design for users to operate in an easy and convenient way.
- A new 2-way Jog-Dial Knob (Jog Dial + Push Button) and presents excellent durability and mobility.
- High-quality LCD with Back-light function.
- A durable Main Button and a Sub Button that features superb and user-friendly operation.



Wire Shelf, PE-coated Steel (Included)



Wire Shelf, Stainless-steel (Optional)



WiseRemote Control Software :

Connection of Temperature Devices with Interface RS232C to a PC
Export Recorded Data(Excel Spreadsheet)

* You can Download this Software from DAIHAN-Sci.com Shopping-mall

DAIHAN® SMART Forced-air Incubator “ThermoStable™ SIF”, 50 · 105 · 155 Lit, 3-Side Heating Zone
With Smart-Lab™ Controller/4" Full Touch Screen/Fuzzy-PID Control/2 Wire Shelf/Certi. & Traceability, up to 70℃, $\pm 0.2^\circ\text{C}$
스마트 강제 순환식 배양기/인큐베이터, 우수한 온도균일성, WiRe™서비스, 4인치 풀터치스크린 조절기



“ThermoStable™ SIF-105”, SMART Forced-air Incubator

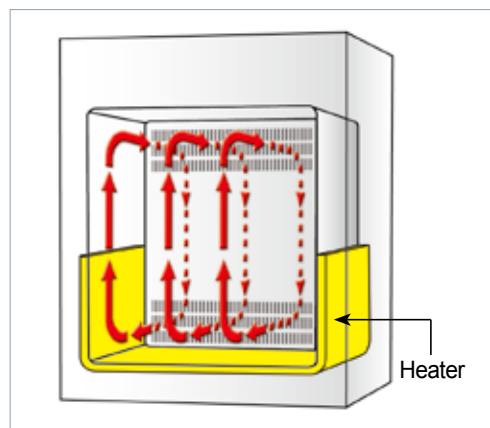
- Made in Korea
- UL / CUL Certified
- CE Certified
- with Certificate & Traceability : Controlled by Serial Number, Certificate, Delivery-information, and Traceable Data Base System
- Optimized Air Flow by Forced-air Mechanism
- 3-Side Heating Mechanism : The Best Temp. Uniformity & Accuracy by High Performance Heating Mechanism
- Smart-Lab™ Controller
- GD(Good Design)-mark
- PL(Product Liability) Insurance

- * Various Application : Microorganism Culture, Animal & Plant Cell Culture, Constant Temp, Germination, and so on
- * Optimized Air Flow by Forced-air Mechanism
- * Ergonomic Design 4" Full Touch Screen TFT LCD(Smart-Lab™ Controller)
- * WiRe™ App Service.
- * Automatic Data Recording
- * Self-Diagnostic Function
- * Internet Connectivity with WiFi
- * Variable Program Setting for Multiple Patterns with Multiple Segments
- * The Recorded Data Could be transferred to PC by USB memory
- * Compact New Body Design
- * Controller SW can be upgraded through USB port.
- * 2ea of PE-coated steel Wire Shelves Included
- * RS232C Interface for Monitoring and Controlling with PC
- * Ambient to 70℃ of Temp. Range, Fluctuation of $\pm 0.2^\circ\text{C}$ at 37℃, $\pm 0.3^\circ\text{C}$ at 50℃
- * Corrosion Resistant 304 Stainless-steel Chamber
- * Incubator Temperature & Incubator Current Protection, Sensor Error Detection

Specification

Spec.		Model	ThermoStable™ SIF-50 Max. Capa. 50Lit	ThermoStable™ SIF-105 Max. Capa. 105Lit	ThermoStable™ SIF-155 Max. Capa. 155Lit
Capacity			50 Lit	105 Lit	155 Lit
Dimension (w×d×h)	Interior (mm)	370×350×419	485×410×533	550×475×600	
	Exterior (mm)	518×637×700	635×695×841	700×760×906	
Heater Power			200W	300W	400W
Temp.	Range	Room Temp. +5℃ to 70℃			
	Fluctuation	± 0.2℃ at 37℃, ± 0.3℃ at 50℃			
	Variation	± 0.5℃ at 37℃, ± 0.9℃ at 50℃	± 0.4℃ at 37℃, ± 0.7℃ at 50℃		
	Sensor	PT 100			
Control Resolution			± 0.1℃		
Heat-up Time			17 min. to 37℃, 28 min. to 50℃	17 min. to 37℃, 30 min. to 50℃	
Recovery Time (Door open 30sec)			3 min. to 37℃, 4 min. to 50℃		
Controller			Smart-Lab™ Controller		
RS232			Port Available to connect with PC		
Display			4" Full Touch Screen TFT LCD		
Timer			99hr 59 min (delay/continuous function)		
Material	Internal	Stainless-steel (#304)			
	External	Powder Coated steel			
	Inner Door	Inner Tempered Glass Door			
Shelf			2ea of PE-coated steel Wire Shelf included, Load per Shelf : 16 kg		
Ventilation			1ea of Ventilation hole with Stainless-steel Cap, Hole Diameter 40mm		
Circulation			Forced-air Type		
Safety device			Over Temp. and Over Current Protector, Sensor Error Detector		
Others			UL/CUL Certified, CE Certified, GD-mark Storage Function (Temp. and Time) Alarm (Error Status and Timer-end)		
Net Weight (kg)			46	66	81
Packing Size (w×d×h) (mm)			628×752×775	710×731×1,018	731×810×1,018
Shipping Weight (kg)			58	74	92
Power Consumption			216.3 W	302.9 W	438.1 W
Energy Consumption, at 37℃ , at 50℃			28 Wh	43 Wh	58 Wh
			84 Wh	129 Wh	145 Wh
Electrical Reqs.			120V, 60Hz or 230V, 50/60Hz		

* Other Specifications are available upon Customer's Request.



3-Side Heating Zone : The Best Temp. Uniformity & Accuracy by High Performance Heating Mechanism.



Display of Smart-Lab™ Controller

<Continued On Next Page>

Cat. No	Description	Articles
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<Continued From...DAIHAN® SMART Forced-air Incubator "ThermoStable™ SIF">

※ 운임 약 ₩ 25,000 별도!

Ordering Information

DH.SWIF03050	Incubator, Forced, 230V, 50 Lit, "ThermoStable SIF-50"
DH.SWIF03105	, 105 Lit, "ThermoStable SIF-105"
DH.SWIF03155	, 155 Lit, "ThermoStable SIF-155"
DH.SWIF04050	Incubator, Forced, 120V, 50 Lit, "ThermoStable SIF-50"
DH.SWIF04105	, 105 Lit, "ThermoStable SIF-105"
DH.SWIF04155	, 155 Lit, "ThermoStable SIF-155"

Ea. Price, ₩



2-Year Warranty

"ThermoStable SIF-105",
SMART Forced-air Incubator

Spare PE-coated Steel Wire Shelf

DH.WIG11050	Wire Shelf, PE-coated Steel, with 2 Brackets, for 50 Lit, "IGS050", w340×d310mm
DH.WIG11105	Wire Shelf, PE-coated Steel, with 2 Brackets, for 105 Lit, "IGS105", w455×d375mm
DH.WIG11155	Wire Shelf, PE-coated Steel, with 2 Brackets, for 155 Lit, "IGS155", w520×d440mm

Ea. Price, ₩

Optional Stainless-steel Wire Shelf

DH.WON11050	Wire Shelf, Stainless-steel, with 2 Brackets, for 50 Lit, "ONS050", w340×d310mm
DH.WON11105	Wire Shelf, Stainless-steel, with 2 Brackets, for 105 Lit, "ONS105", w455×d375mm
DH.WON11155	Wire Shelf, Stainless-steel, with 2 Brackets, for 155 Lit, "ONS155", w520×d440mm

Ea. Price, ₩

SMART Incubator with Validation (IQ, OQ) Service

DH.SWIF31050	Validation Service(IQ, OQ), with "SIF-50", "SIFV050"
DH.SWIF31105	, with "SIF-105", "SIFV105"
DH.SWIF31155	, with "SIF-155", "SIFV155"

Ea. Price, ₩



Wire Shelf, PE-coated Steel
(Included)

DAIHAN WiRe™ App Service



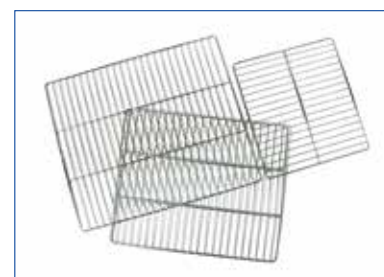
4" Full Touch Screen TFT LCD
(Smart-Lab™ Controller)

It is possible to monitor and control the Smart-Lab™ equipment through all smart phone, tablet without restraint of time and place.



WiRe™ App Service

Controlled by Smart-Phone

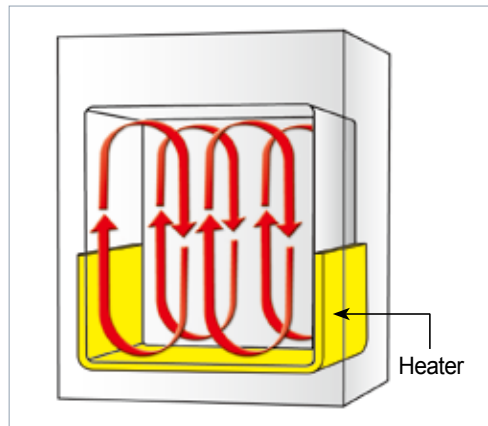


Wire Shelf, Stainless-steel
(Optional)

DAIHAN® Gravity-air Incubator “ThermoStable™ IG”, **Class I Medical Device(NIDS)**, 32 · 50 · 105 · 155 Lit
 With 2 Wire Shelf/Digital PID Control/Jog-Dial & Push Button/Digital LCD & Backligh, Certi. & Traceability, up to 70℃, ±0.2℃
 자연 대류식 배양기/인큐베이터, 디지털 퍼지 컨트롤, 우수한 온도 균일도와 정확도



“ThermoStable™ IG-105”, Gravity-air Incubator



3-Side Heating Zone : The Best Temp. Uniformity & Accuracy by High Performance Heating Mechanism.

- Made in Korea
- UL / CUL Certified
- CE Certified
- with Certificate & Traceability : Controlled by Serial Number, Certificate, Delivery-information, and Traceable Data Base System
- Optimized Air Circulation by Gravity-air preventing Cross Contamination of Samples
- 3-Side Heating Mechanism : The Best Temp. Uniformity & Accuracy by High Performance Heating Mechanism
- Patented Jog-Dial Control System
- GD(Good Design)-mark
- PL(Product Liability) Insurance
- * Various Application : Microorganism Culture, Animal & Plant Cell Culture, Constant Temp Germination, and so on
- * Optimized Air Circulation by Gravity-air preventing Cross Contamination of Samples
- * Digital PID Control System Implementing Superior Temperature Accuracy
- * RS232C Interface for Monitoring and Controlling with PC
- * Ambient to 70℃ of Temp. Range, Fluctuation of ±0.2℃ at 37℃, ±0.3℃ at 50℃
- * Alarm Function : Error status and Timer-end
- * Storage Function of Temperature and Timer setting values
- * Locking Mode Supported for Experimental Safety (Input to Jog-Dial can be disabled)
- * Corrosion Resistant 304 Stainless-steel Chamber
- * Incubator Temperature & Incubator Current Protection, Sensor Error Detection

Specification

Spec.		Model	ThermoStable™ IG-32 Max. Capa. 32L	ThermoStable™ IG-50 Max. Capa. 50L	ThermoStable™ IG-105 Max. Capa. 105L	ThermoStable™ IG-155 Max. Capa. 155L
Capacity			32 Lit	50 Lit	105 Lit	155 Lit
Dimension (w×d×h)	Interior (mm)		312×290×360	370×350×420	485×410×535	550×475×600
	Exterior (mm)		458×477×624	518×537×701	635×595×841	700×660×906
Heater Power			150W	200W	300W	400W
Temp.	Range		Range Room Temp. +5℃ to 70℃			
	Fluctuation		± 0.2℃ at 37℃, ± 0.3℃ at 50℃			
	Variation		± 0.6℃ at 37℃, ± 1.0℃ at 50℃			
	Sensor		PT 100			
Control Resolution			±0.1℃			
Heat-up Time			25 min. to 37℃, 40 min. to 50℃			30 min. to 37℃, 40 min. to 50℃
Recovery Time (Door open 30sec)			8 min. to 37℃ 12 min. to 50℃		10 min. to 37℃ 15 min. to 50℃	
Controller			Digital PID Control by Advanced Microprocessor Jog-Dial with Push Button			
RS232			Available to connect with PC			
Display			Digital LCD with Back Light			
Timer			99hr 59 min (delay/continuous function)			
Material	Internal		Stainless-steel (#304)			
	External		Powder Coated steel			
	Inner Door		Inner Tempered Glass Door			
Shelf			2ea of PE-coated Steel Wire Shelf included, Load per Shelf : 16 kg			
Ventilation			1ea of Ventilation hole with Stainless-steel Cap, Hole Diameter 40mm			
Circulation			Gravity-air Type			
Safety device			Over Temp. and Over Current Protector, Sensor Error Detector			
Others			UL/CUL Certified, CE Certified, GD-mark Storage Function (Temp. and Time) Locking Mode (Jog-Dial Input Disabled) Alarm (Error Status and Timer-end)			
Net Weight (kg)			32	40	59	71
Packing Size (w×d×h) (mm)			568×592×698	628×652×775	731×710×1,018	796×775×1,083
Shipping Weight (kg)			39	53	67	78
Power Consumption			159 W	169.9 W	292.9 W	420.5 W
Energy Consumption, at 37℃ 						

* Other Specifications are available upon Customer's Request.

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Cat. No	Description	Articles
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<Continued From...DAIHAN® Gravity-air Incubator "ThermoStable™ IG">

※ 운임 약 ₩ 25,000 별도!

Ordering Information

DH.WIG03032	Incubator, Gravity, 230V, 32 Lit, "ThermoSatble IG-32"
DH.WIG03050	, 50 Lit, "ThermoSatble IG-50"
DH.WIG03105	, 105 Lit, "ThermoSatble IG-105"
DH.WIG03155	, 155 Lit, "ThermoSatble IG-155"
DH.WIG04032	Incubator, Gravity, 120V, 32 Lit, "ThermoSatble IG-32"
DH.WIG04050	, 50 Lit, "ThermoSatble IG-50"
DH.WIG04105	, 105 Lit, "ThermoSatble IG-105"
DH.WIG04155	, 155 Lit, "ThermoSatble IG-155"

Ea. Price, ₩



"ThermoStable IG-105", Gravity-air Incubator

Spare PE-coated Steel Wire Shelf

DH.WIG11032	Wire Shelf, PE-coated Steel, with 2 Brackets, for 32 Lit, "IGS032", w280 × d260mm
DH.WIG11050	Wire Shelf, PE-coated Steel, with 2 Brackets, for 50 Lit, "IGS050", w340 × d310mm
DH.WIG11105	Wire Shelf, PE-coated Steel, with 2 Brackets, for 105 Lit, "IGS105", w455 × d375mm
DH.WIG11155	Wire Shelf, PE-coated Steel, with 2 Brackets, for 155 Lit, "IGS155", w520 × d440mm

Ea. Price, ₩

Optional Stainless-steel Wire Shelf

DH.WIG12032	Wire Shelf, Stainless-steel, with 2 Brackets, for 32 Lit, "IGSN032", w280 × d260mm
DH.WON11050	Wire Shelf, Stainless-steel, with 2 Brackets, for 50 Lit, "ONSO50", w340 × d310mm
DH.WON11105	Wire Shelf, Stainless-steel, with 2 Brackets, for 105 Lit, "ONS105", w455 × d375mm
DH.WON11155	Wire Shelf, Stainless-steel, with 2 Brackets, for 155 Lit / 305Lit, "ONS155", w520 × d440mm

Ea. Price, ₩

Gravity Convection Incubator with Validation (IQ, OQ) Service

DH.WIG31032	Validation Service(IQ, OQ), with "ThermoSatble IG-32", "IGV032"
DH.WIG31050	, with "ThermoSatble IG-50", "IGV050"
DH.WIG31105	, with "ThermoSatble IG-105", "IGV105"
DH.WIG31155	, with "ThermoSatble IG-155", "IGV155"

Ea. Price, ₩

>> New Jog-Dial Controller

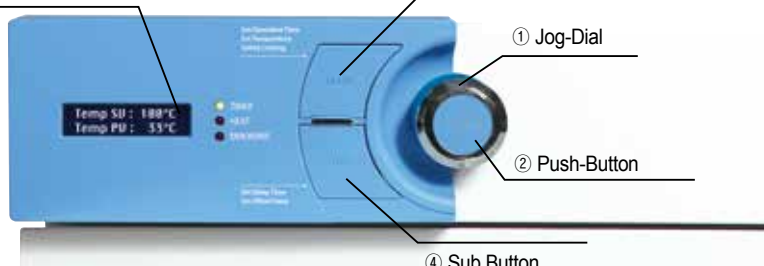
⑤ Digital LCD with Back-light Function

③ Main Button

① Jog-Dial

② Push-Button

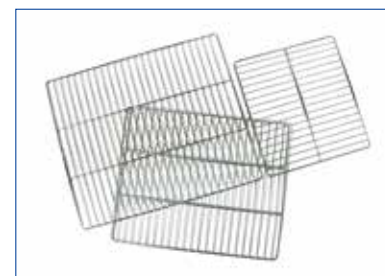
④ Sub Button



- Provides the user interface with an ergonomic design for users to operate in an easy and convenient way.
- A new 2-way Jog-Dial Knob (Jog Dial + Push Button) and presents excellent durability and mobility.
- High-quality LCD with Back-light function.
- A durable Main Button and a Sub Button that features superb and user-friendly operation.



Wire Shelf, PE-coated Steel (Included)



Wire Shelf, Stainless-steel (Optional)



WiseRemote Control Software :

Connection of Temperature Devices with Interface RS232C to a PC
Export Recorded Data(Excel Spreadsheet)

* You can Download this Software from
DAIHAN-Sci.com Shopping-mall

DAIHAN® SMART Gravity-air Incubator “ThermoStable™ SIG”, **Class I Medical Device(NIDS)**, 32 · 50 · 105 · 155 Lit With **Smart-Lab™ Controller**/4" Full Touch Screen/Fuzzy-PID Control/2 Wire Shelf/Certi. & Traceability, up to 70℃, $\pm 0.2^\circ\text{C}$ 스마트 자연 대류식 배양기/인큐베이터, 우수한 온도 균일도와 정확도, WiRe™서비스, 4인치 풀터치스크린 조절기



“ThermoStable™ SIG-105”, SMART Gravity-air Incubator

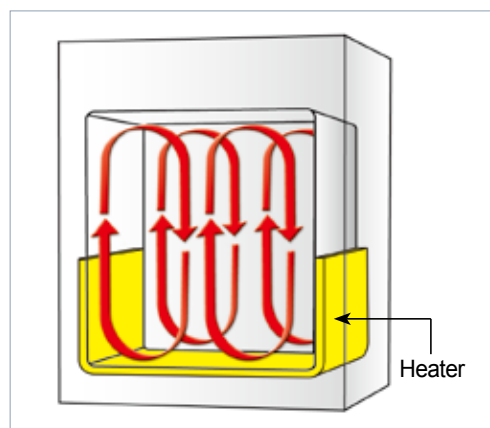
- Made in Korea
- UL / CUL Certified
- CE Certified
- with Certificate & Traceability : Controlled by Serial Number, Certificate, Delivery-information, and Traceable Data Base System
- Optimized Air Circulation by Natural Flow preventing Cross Contamination of Samples
- 3-Side Heating Mechanism : The Best Temp. Uniformity & Accuracy by High Performance Heating Mechanism
- Smart-Lab™ Controller
- GD(Good Design)-mark
- PL(Product Liability) Insurance
- * Various Application : Microorganism Culture, Animal & Plant Cell Culture, Constant Temp., Germination, and so on
- * Corrosion Resistant 304 Stainless-steel Chamber
- * Optimized Air Circulation by Natural Flow preventing Cross Contamination of Samples
- * Ergonomic Design 4" Full Touch Screen TFT LCD(Smart-Lab™ Controller)
- * WiRe™ App Service.
- * Automatic Data Recording
- * Self-Diagnostic Function
- * 2ea of PE-coated steel Wire Shelves Included
- * Variable Program Setting for Multiple Patterns with Multiple Segments
- * The Recorded Data could be transferred to PC by USB memory
- * Controller SW can be upgraded through USB port.
- * Internet Connectivity with WiFi
- * Compact New Body Design
- * RS232C Interface for Monitoring and Controlling with PC
- * Ambient to 70℃ of Temp. Range, Fluctuation of $\pm 0.2^\circ\text{C}$ at 37℃, $\pm 0.3^\circ\text{C}$ at 50℃
- * Over Temperature & Over Current Protection, Sensor Error Detection

Specification

Spec.		Model	ThermoStable™ SIG-32 Max. Capa. 32L	ThermoStable™ SIG-50 Max. Capa. 50L	ThermoStable™ SIG-105 Max. Capa. 105L	ThermoStable™ SIG-155 Max. Capa. 155L
Capacity			32 Lit	50 Lit	105 Lit	155 Lit
Dimension (w×d×h)	Interior (mm)	312×290×360	370×350×420	485×410×535	550×475×600	
	Exterior (mm)	458×477×624	518×537×701	635×595×841	700×660×906	
Heater Power			150W	200W	300W	400W
Temp.	Range	Room Temp. +5℃ to 70℃				
	Fluctuation	± 0.2℃ at 37℃, ± 0.3℃ at 50℃				
	Variation	± 0.6℃ at 37℃, ± 1.0℃ at 50℃				
	Sensor	PT 100				
Control Resolution			±0.1℃			
Heat-up Time			25 min. to 37℃, 40 min. to 50℃			30 min. to 37℃, 40 min. to 50℃
Recovery Time (Door open 30sec)			8 min. to 37℃ 12 min. to 50℃		10 min. to 37℃ 15 min. to 50℃	
Controller			Smart-Lab™ Controller			
RS232			Available to connect with PC			
Display			4" Full Touch Screen TFT LCD			
Timer			99hr 59 min (delay/continuous function)			
Material	Internal	Stainless-steel (#304)				
	External	Powder Coated steel				
	Inner Door	Inner Tempered Glass Door				
Shelf			2ea of PE-coated steel Wire Shelf included, Load per Shelf : 16 kg			
Ventilation			1ea of Ventilation hole with Stainless-steel Cap, Hole Diameter 40mm			
Circulation			Gravity-air Type			
Safety device			Over Temp. and Over Current Protector, Sensor Error Detector			
Others			UL/CUL Certified, CE Certified, GD-mark Storage Function (Temp. and Time) Alarm (Error Status and Timer-end)			
Net Weight (kg)			32	40	59	71
Packing Size (w×d×h) (mm)			568×592×698	628×652×775	731×710×1,018	796×775×1,083
Shipping Weight (kg)			39	53	67	78
Power Consumption			159 W	169.9 W	292.9 W	420.5 W
Energy Consumption, at 37℃ , at 50℃			34 Wh	41 Wh	63 Wh	99 Wh
			81 Wh	103 Wh	152 Wh	212 Wh
Electrical Reqts.			120V, 60Hz or 230V, 50/60Hz			

* Other Specifications are available upon Customer's Request.

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3-Side Heating Zone : The Best Temp. Uniformity & Accuracy by High Performance Heating Mechanism.



Display of Smart-Lab™ Controller

Cat. No	Description	Articles
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<Continued From...DAIHAN® SMART Gravity-air Incubator “ThermoStable™ SIG”>

※ 운임 약 ₩ 25,000 별도!

Ordering Information

DH.SWIG03032	Incubator, Gravity, 230V, 32 Lit, “ThermoStable SIG-32”
DH.SWIG03050	, 50 Lit, “ThermoStable SIG-50”
DH.SWIG03105	, 105 Lit, “ThermoStable SIG-105”
DH.SWIG03155	, 155 Lit, “ThermoStable SIG-155”
DH.SWIG04032	Incubator, Gravity, 120V, 32 Lit, “ThermoStable SIG-32”
DH.SWIG04050	, 50 Lit, “ThermoStable SIG-50”
DH.SWIG04105	, 105 Lit, “ThermoStable SIG-105”
DH.SWIG04155	, 155 Lit, “ThermoStable SIG-155”

Ea. Price, ₩



Spare PE-coated Steel Wire Shelf

DH.WIG11032	Wire Shelf, PE-coated Steel, with 2 Brackets, for 32 Lit, “IGS032”, w280 × d260mm
DH.WIG11050	Wire Shelf, PE-coated Steel, with 2 Brackets, for 50 Lit, “IGS050”, w340 × d310mm
DH.WIG11105	Wire Shelf, PE-coated Steel, with 2 Brackets, for 105 Lit, “IGS105”, w455 × d375mm
DH.WIG11155	Wire Shelf, PE-coated Steel, with 2 Brackets, for 155 Lit, “IGS155”, w520 × d440mm

Ea. Price, ₩

Optional Stainless-steel Wire Shelf

DH.WIG12032	Wire Shelf, Stainless-steel, with 2 Brackets, for 32 Lit, “IGSN032”, w280 × d260mm
DH.WON11050	Wire Shelf, Stainless-steel, with 2 Brackets, for 50 Lit, “ONS050”, w340 × d310mm
DH.WON11105	Wire Shelf, Stainless-steel, with 2 Brackets, for 105 Lit, “ONS105”, w455 × d375mm
DH.WON11155	Wire Shelf, Stainless-steel, with 2 Brackets, for 155 Lit, “ONS155”, w520 × d440mm

Ea. Price, ₩

SMART Incubator with Validation (IQ, OQ) Service

DH.SWIG31032	Validation Service(IQ, OQ), with “SIG-32”, “SIGV032”
DH.SWIG31050	, with “SIG-50”, “SIGV050”
DH.SWIG31105	, with “SIG-105”, “SIGV105”
DH.SWIG31155	, with “SIG-155”, “SIGV155”

Ea. Price, ₩

DAIHAN WiRe™ App Service



4" Full Touch Screen TFT LCD
(Smart-Lab™ Controller)

It is possible to monitor and control the Smart-Lab™ equipment through all smart phone, tablet without restraint of time and place.

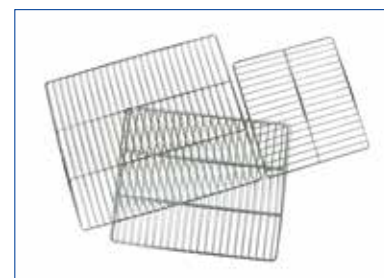


WiRe™ App Service

Controlled by Smart-Phone



Wire Shelf, PE-coated Steel
(Included)



Wire Shelf, Stainless-steel
(Optional)

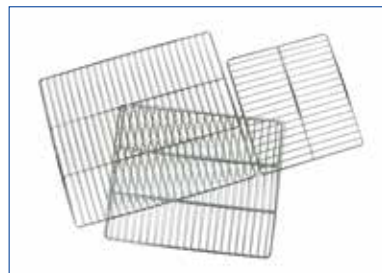
DAIHAN® Multi-Room Incubator “WIM”, Forced-air, 125 Lit × 4 Rooms, with Certi. & Traceability, up to 60/70 °C
With 8 Wire Shelf, Digital Fuzzy Control, Independent Chamber Control, Max. Temp. Uniformity & Accuracy
4-룸 배양기/인큐베이터, 강제 순환식, 디지털 퍼지 제어, 개별 컨트롤러 장착



Multi-Room Incubator, Forced-air, “WIM-R4”



Wire Shelf, PE-coated steel
(Included)



Wire Shelf, Stainless-steel
(Optional)

- Made in Korea
 - UL/CUL Certified
 - CE Certified
 - with Certificate & Traceability : Controlled by Serial Number, Certificate, Delivery-information, and Traceable Data Base System
 - Patented Jog-Shuttle Control System
 - PL(Product Liability) Insurance
- * Variable Application : Microorganism Culture, Cell Culture, Constant Temp. Germination
* Each Chamber has an Independent Controller for Different Temp and Time Control
* Forced-air Flow by Silent Fan Motor Implements the Highest Uniformity of Temp in Each Chamber
* Storage Function for Set Values of Temperature and Time
* Stainless-steel Chamber and PE-coated Shelves (2ea for Each Chamber) - Corrosion Resistance
* Inner Tempered Glass Door : to Observe the Samples without Interruption of Incubation
* Over Temperature & Over Current Protection, Sensor Error Detection and Leakage Breaking.
* Locking Mode Supported for Experimental Safety (Input to Jog-Shuttle can be Disabled)

Specifications & Ordering information

※ 운임 약 ₩ 95,000 별도!

Spec.		Model	(1) “WIM-4”	(2) “WIM-R4”	(3) “WIM-RL4” with illumination
Temp. Range			R/T +5℃~ 70℃	0℃ to 60℃	0℃ to 60℃
Circulation			Forced-air(Blower FAN)		
Capacity			125 Lit× 4 Rooms		
Illumination			None		FRL 36W×2 (×4 Rooms)
Temp.	Accuracy	± 0.2℃ at 37℃			
	Uniformity	± 0.3℃ at 37℃, ± 0.7℃ at 50℃		± 0.5℃ at 37℃	
Heat-up Time		15 min. to 37℃ 30 min. to 50℃		20 min. to 37℃ 30 min. to 50℃	
Recovery Time (Door open 30sec)		8 min. to 37℃ 10 min. to 50℃		10 min. to 50℃ 12 min. to 50℃	
Heating / Compressor		500 W×4ea / None		650 W×4ea / 1/4 HP (×4 Rooms)	
Timer & Alarm		99hr 59min (with delay / Continuous run.), Error status & Timer-end			
Display		Digital LCD with Back-Light Function			
Controller		Digital Fuzzy Controller with Jog-Shuttle Switch (Turn & Push)			
Inner Door		with 4ea of Inner Tempered Glass Door			
Shelf		Included 8ea of PE-coated steel Shelf (2ea×4 Chambers)			
Permitted Total Load		Total Load 128 kg (16kg×8 Shelves)			
Safety Circuit		Over Temp. and Over Current Protector, Sensor Error Detector			
Material		Internal : Stainless-steel (# 304), External : Powder Coated steel			
Dimension (w×d×h)	Interior (mm)	500×500×h500 mm (× 4 Rooms)			
	Exterior (mm)	1,655×845×h1,710 mm			
Net Weight / Gross Weight		343kg / 441kg		350kg / 450kg	
Packing Size (w×d×h) (mm)		1,900×1,050×1,950			
Power Consumption		2.6 kW		4.5 kW	4.8 kW
Power Supply*		1 Phase, AC 120V, 60Hz or AC 230V, 50/60Hz		1 Phase AC 120V, 60Hz or AC 230V,50/60Hz or 3 Phase	
Cat. No.	230V	DH.WIM04125	DH.WIM14125	DH.WIM24125	
	120V	DH.WIM05125	DH.WIM15125	DH.WIM25125	
	3Phase	-	DH.WIM16125	DH.WIM26125	
Price, Each. ₩					

Multi-Room Incubator with Validation (IQ, OQ) Service

DH.WIM54125 Validation Service(IQ, OQ), with “WIM-4”, “IMV525”
DH.WIM64125 , with “WIM-R4”, “IMV625”
DH.WIM74125 , with “WIM-RL4”, “IMV725”

Ea. Price, ₩

Spare PE-coated Steel Wire Shelf

DH.WIM34125 Wire Shelf, PE-coated steel, with 2 Brackets, “IMS125”
w470 × d480mm, for “WIM” 4-Room Incubator

Ea. Price, ₩

Optional Stainless-steel Wire Shelf

DH.WIM34126 Wire Shelf, Stainless-steel, with 2 Brackets, “IMS126”,
w470 × d480mm, for “WIM” 4-Room Incubator

Ea. Price, ₩

DAIHAN® Premium Compact-size Heating Block/Dry Bath Incubator "MaXtable™ H20"

With Large LCD Display, Fuzzy Control, Molded Heater, Modular Anodized Aluminum Blocks, up to 150°C, $\pm 0.1^\circ\text{C}$

히팅 블록, 디지털 퍼지 컨트롤 시스템, 터치버튼식 조절기, 일체형 주물 히터, 블록 교체 가능, 블록 추출용 공구 포함

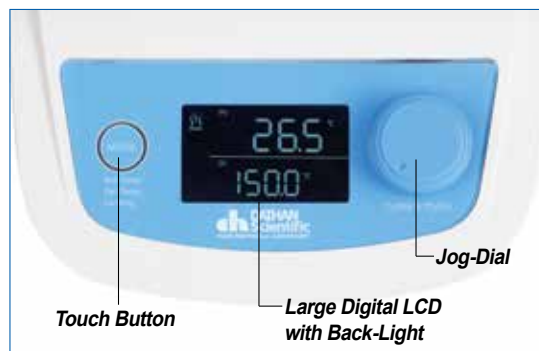


- Made in Korea ■ CE Certified ■ PL(Product Liability) Insurance
- with Certificate & Traceability : Controlled by Serial Number, Certificate, Delivery-information, and Traceable Data Base System
- Designed for Multi-functional Dry Block Heater ■ Ergonomic Design
- Patented Jog-Dial and Main Touch Button - Best Durability, Best Mobility, Best Convenient to Operate. with Large Back-Light LCD
- With a Screw-type Block Removal Tool ; Convenient Handling
- * High-performance Molded Heater ensures Best Temperature Accuracy.
- * Internal Bath Material(PPS) ensures Best Heat Insulation * Rapid heat up time.
- * Ideal for Enzyme Reactions, Inactivation of Sera, Incubation and Other Laboratory Procedures
- * Precise Temperature Control : $\pm 0.1^\circ\text{C}$ at 37°C , $\pm 0.2^\circ\text{C}$ at 90°C , $\pm 0.4^\circ\text{C}$ at 135°C
- * User Self-Compensation Function to offset between Actual and Displayed Temperature. ($\pm 10.0^\circ\text{C}$)
- * Digital Timer Included : up to 99hr 59min (Operation Time + Delay Time)
- * Storage Function of Temperature and Timer setting values
- * Convenient integral timer for time-sensitive incubations
- * Alarm Function : Error Status and Timer-end * Easy to Read, Wide LCD Screen
- * Locking Mode Supported for Experimental Safety (Input to Jog-Dial can be Disabled)
- * Easily calibrated for accurate temperature control and display

Specifications & Ordering information

Spec.	Model	"MaXtable™ H20" (Only Unit)	"MaXtable™ H20-set" (included Standard Block)
Controller		Single Digital Fuzzy Controller	
Useful Block		Interchangeable Block(90×120×h60mm) for Various Tubes	
included Standard Block		None(Only Heating Block Unit)	48 holes×for 1.5/2ml Centri. Tube
Heater		Molded Heater(300W)	
Dimension(mm) & Weight(kg)		Unit : 178×226×h138, Block : 90×120×h60	
Temp. Range, & Accuracy		Ambient +5°C to 150°C, $\pm 0.1^\circ\text{C}$ at 37°C , $\pm 0.2^\circ\text{C}$ at 90°C , $\pm 0.4^\circ\text{C}$ at 135°C	
Heat-Up Speed & Sensor		Approx. 5°C/min, PT100	
Safety Circuit		Over Temp. and Over Current Protector, Sensor Error Detector	
Timer with Alarm		99hr 59min, Alarm (Error Status and Timer - end)	
Display		Digital LCD with Back-Light Function	
Material		Unit : PPS & BAS(HF380), Block : Anodized Aluminum	
Included Standard Acce.		Block Extraction Tool	
Packing Size & Gross Weight		230×290×h245 mm, 2.2 kg	230×355×h245 mm, 3.5 kg
Power Consumption		300 W	
Electric Reqts.		1 Phase, AC 120V, 60Hz or AC 230V, 50 / 60Hz	
Cat. No.	230V	DH.WHB02000	DH.WHB02100
	120V	DH.WHB02001	DH.WHB02101
Price, Each. ₩			

* Other Specifications are available upon Customer's Request.

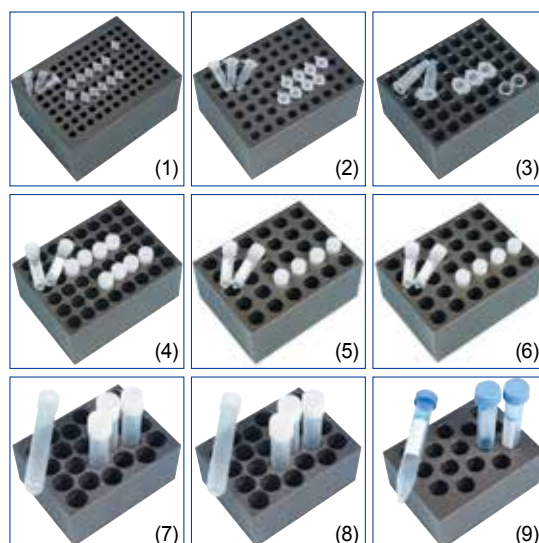


Controller of "MaXtable™ H20"



Included Block (3) "BLC 548" 48holes for 1.5/2ml & Removal Tool

Optional Interchangeable Anodized Aluminum Block (90×120×h60mm)



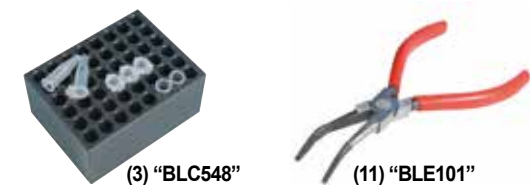
- | | |
|--------------|---|
| DH.WHB510596 | (1) for 0.2ml PCR Tube, ($\phi 6 \times h16\text{mm}$)×96 holes, "BLC596" |
| DH.WHB510570 | (2) for 0.5ml Centri. Tube, ($\phi 7.7 \times h29.5\text{mm}$)×63 holes, "BLC570" |
| DH.WHB511548 | (3) for 1.5/2ml Centri. Tube, ($\phi 11 \times h35\text{mm}$)×48 holes, "BLC548"
(* included in the "H20-Set") |
| DH.WHB521248 | (4) for $\phi 12\text{mm}$ Test Tube, ($\phi 12 \times h35\text{mm}$)×48 holes, "BLT248" |
| DH.WHB521335 | (5) for $\phi 13\text{mm}$ Test Tube, ($\phi 13 \times h47\text{mm}$)×30 holes, "BLT335" |
| DH.WHB521535 | (6) for $\phi 15\text{mm}$ Test Tube, ($\phi 15 \times h47\text{mm}$)×30 holes, "BLT535" |
| DH.WHB521628 | (7) for $\phi 16.5\text{mm}$ Test Tube, ($\phi 16.5 \times h47\text{mm}$)×24 holes, "BLT628" |
| DH.WHB521828 | (8) for $\phi 18\text{mm}$ Test Tube, ($\phi 18 \times h47\text{mm}$)×24 holes, "BLT828" |
| DH.WHB531515 | (9) for 15ml Conical Tube, ($\phi 16 \times h47\text{mm}$)×15 holes, "BLC515" |
| DH.WHB535008 | (10) for 50ml Conical Tube, ($\phi 28.7 \times h47\text{mm}$)×8 holes, "BLC008" |
| DH.WHB500102 | (11) Spare ; Block Removal Tool, Easy Handling |

Ea. Price, ₩

DAIHAN® High-performance Heating Block/Dry Bath Incubator “HB-96D”, Heating, Dual-type
With Fuzzy Control, Molded Heater, Modular Anodized Aluminum Blocks, Acrylic Lid, Touch-button Controller, up to 150°C, $\pm 0.1^\circ\text{C}$
히팅 블록, 디지털 퍼지 컨트롤 시스템, 듀얼 조절기/블럭, 일체형 주물 히터, 블럭 교체 가능, 아크릴 리드/블럭용 집게 포함



Heating Block/Dry Bath, Dual Control System
“HB-96D-set”



Included Anodized Aluminum Block & Tongs

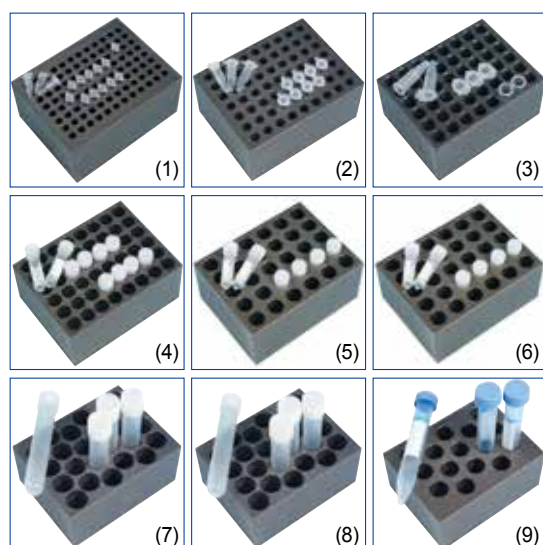
- Made in Korea ■ CE Certified ■ PL (Product Liability) Insurance
- with Certificate & Traceability : Controlled by Serial Number, Certificate, Delivery-information, and Traceable Data Base System
- Designed for Multi-functional Dry Block Heater
- Dual Controller & Block
- Patented Jog-Shuttle Control System and Digital LCD with Back-Light Function
- * Ideal for Enzyme Reactions, Inactivation of Sera, Incubation and Other Laboratory Procedures
- * Precise Temperature Control : $\pm 0.1^\circ\text{C}$ at 37°C , $\pm 0.2^\circ\text{C}$ at 90°C , $\pm 0.4^\circ\text{C}$ at 135°C
- * User Self-Compensation Function to offset between Actual and Displayed Temperature. ($\pm 10.0^\circ\text{C}$)
- * Over Temperature & Over Current Protection and Sensor Error Detection
- * Digital Timer Included : up to 99hr 59min (Operation Time + Delay Time)
- * Storage Function of Temperature and Timer setting values
- * Modular Block
- * Alarm Function : Error Status and Timer-end
- * Various kind of Blocks are offered (Optional)
- * Locking Mode Supported for Experimental Safety (Input to Jog-Shuttle can be Disabled)
- * The Block Removal Tongs are Included for Easy Handling

Specifications & Ordering information

Spec.	Model	“HB-96D” (Only Unit)	“HB-96D-set” (included Standard Block)
Controller		Dual Digital Fuzzy Controller	
Useful Block		Interchangeable Block(90×120×h60mm) for Various Tubes	
Included Standard Block		None(Only Heating Block Unit)	2×48 holes×for 1.5/ 2ml Centri. Tube
Heater		Molded Heater(300W)×2ea	
Dimension(mm)		Unit : 285×250×h155, Block : (90×120×h60)×2ea	
Temp. Range, & Accuracy		Ambient +5°C to 150°C, $\pm 0.1^\circ\text{C}$ at 37°C , $\pm 0.2^\circ\text{C}$ at 90°C , $\pm 0.4^\circ\text{C}$ at 135°C	
Heat-Up Speed & Sensor		Approx. 5°C/min, PT100	
Safety Circuit		Over Temp. and Over Current Protector, Sensor Error Detector	
Timer with Alarm		99hr 59min, Alarm (Error Status and Timer - end)	
Display		Digital LCD with Back-Light Function	
Material		Unit : Stainless-steel (# 304) & Powder Coated steel, Block : Anodized Aluminum	
Included Standard Acce.		Block Tongs “BLE101” and Block Cover	
Packing Size & Gross Weight		400×270×h200 mm, 6 kg	
Power Consumption		600 W	
Electric Reqts.		1 Phase, AC 120V, 60Hz or AC 230V, 50 / 60Hz	
Cat. No.	230V	DH.WHB00198	DH.WHB00199
	120V	DH.WHB02198	DH.WHB02199
Price, Each. ₩			

* Other Specifications are available upon Customer's Request.

Optional Interchangeable Anodized Aluminum Block (90×120×h60mm)



- | | |
|--------------|--|
| DH.WHB510596 | (1) for 0.2ml PCR Tube, ($\phi 6 \times h16\text{mm}$)×96 holes, “BLC596” |
| DH.WHB510570 | (2) for 0.5ml Centri. Tube, ($\phi 7.7 \times h29.5\text{mm}$)×63 holes, “BLC570” |
| DH.WHB511548 | (3) for 1.5/2ml Centri. Tube, ($\phi 11 \times h35\text{mm}$)×48 holes, “BLC548”
(* included in the “HB-96D-Set”) |
| DH.WHB521248 | (4) for $\phi 12\text{mm}$ Test Tube, ($\phi 12 \times h35\text{mm}$)×48 holes, “BLT248” |
| DH.WHB521335 | (5) for $\phi 13\text{mm}$ Test Tube, ($\phi 13 \times h47\text{mm}$)×30 holes, “BLT335” |
| DH.WHB521535 | (6) for $\phi 15\text{mm}$ Test Tube, ($\phi 15 \times h47\text{mm}$)×30 holes, “BLT535” |
| DH.WHB521628 | (7) for $\phi 16.5\text{mm}$ Test Tube, ($\phi 16.5 \times h47\text{mm}$)×24 holes, “BLT628” |
| DH.WHB521828 | (8) for $\phi 18\text{mm}$ Test Tube, ($\phi 18 \times h47\text{mm}$)×24 holes, “BLT828” |
| DH.WHB531515 | (9) for 15ml Conical Tube, ($\phi 16 \times h47\text{mm}$)×15 holes, “BLC515” |
| DH.WHB535008 | (10) for 50ml Conical Tube, ($\phi 28.7 \times h47\text{mm}$)×8 holes, “BLC008” |
| DH.WHB500101 | (11) Spare ; Block Extraction Tongs, “BLE101” |

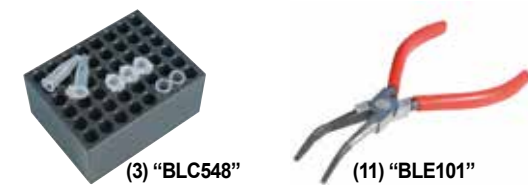
Ea. Price, ₩

DAIHAN® High-performance Heating Block/Dry Bath Incubator-Heating & Cooling "HB-R48"

With Digital PID Control, Acrylic Lid, Precise Temperature Control, Modular Anodized Aluminum Block, $-5^{\circ}\text{C} \sim 95^{\circ}\text{C}$, $\pm 0.1^{\circ}\text{C}$ Peltier Cooling System, Digital Timer, Interchangeable Blocks, 히팅 / 쿨링 블록, 블록 교체 가능, 아크릴 리드 / 블랙용 집게 포함



"HB-R48-Set"
with Block "BLC548" for 1.5/2ml Centrifuge Tube \times 48 holes



Included Anodized Aluminum Block & Tongs

- Made in Korea ■ CE Certified ■ PL (Product Liability) Insurance
- with Certificate & Traceability : Controlled by Serial Number, Certificate, Delivery-information, and Traceable Data Base System
- Designed for Multi-Function : Enzyme Reactions, Inactivation of Sera, Incubation and Other Laboratory Procedures.
- Patented Jog-Shuttle Control System and Digital LCD with Back-Light Function
- * User Self-Compensation Function to offset between Actual and Displayed Temperature. ($\pm 10.0^{\circ}\text{C}$)
- * Storage Function of Temperature and Timer setting values
- * Locking Mode Supported for Experimental Safety (Input to Jog-Shuttle can be Disabled)

Specifications & Ordering information

Spec.	Model	"HB-R48" (Only Unit)	"HB-R48-set" (included Standard Block)
Controller		Digital Fuzzy Controller	
Useful Block		Interchangeable Block(90×120×h60mm) for Various Tubes	
included Standard Block		None(Only Heating Block Unit)	48 holes×for 1.5/2ml Centri. Tube
Dimension : Unit & Block		185×230×h220mm, and 90×120×h60mm	
Cooling		Two Peltier Modules	
Cool-Down Speed		2.3°C/min. between 95°C to 25°C, 0.5°C/min. between 25°C to -5°C	
Heater and Sensor		300W (Molded Heater), PT100	
Temp. Range, & Accuracy		-5°C to 95°C , and $\pm 0.1^{\circ}\text{C}$ at 37°C , $\pm 0.2^{\circ}\text{C}$ at 90°C	
Heat-Up Speed		Approx. 5°C/min	
Safety Device		Over Temp. and Over Current Protector, Sensor Error Detector	
Timer with Alarm		99hr 59min, Alarm (Error Status and Timer - end)	
Display		Digital LCD with Back-Light Function	
Material	Internal & External	Stainless-steel (#304), and Powder Coated steel	
	Block	Anodized Aluminum	
Included Standard Acce.		Block Tongs "BLE101" and Block Cover	
Packing Size, Gross Weight		350×220×h310mm, 9 kg	
Power Consumption		450 W	
Electric Reqts.		1 Phase, AC 120V, 60Hz or AC 230V, 50 / 60Hz	
Cat. No.	230V	DH.WHB00248	DH.WHB00249
	120V	DH.WHB02248	DH.WHB02249
Price, Each. ₩			

* Other Specifications are available upon Customer's Request.

Optional Interchangeable Anodized Aluminum Block (90×120×h60mm)

		Ea. Price, ₩
	DH.WHB510596 (1) for 0.2ml PCR Tube, ($\phi 6 \times h16\text{mm}$) \times 96 holes, "BLC596"	
	DH.WHB510570 (2) for 0.5ml Centri. Tube, ($\phi 7.7 \times h29.5\text{mm}$) \times 63 holes, "BLC570"	
	DH.WHB511548 (3) for 1.5/2ml Centri. Tube, ($\phi 11 \times h35\text{mm}$) \times 48 holes, "BLC548" (- included in the "HB-R48-Set")	
	DH.WHB521248 (4) for $\phi 12\text{mm}$ Test Tube, ($\phi 12 \times h35\text{mm}$) \times 48 holes, "BLT248"	
	DH.WHB521335 (5) for $\phi 13\text{mm}$ Test Tube, ($\phi 13 \times h47\text{mm}$) \times 30 holes, "BLT335"	
	DH.WHB521535 (6) for $\phi 15\text{mm}$ Test Tube, ($\phi 15 \times h47\text{mm}$) \times 30 holes, "BLT535"	
	DH.WHB521628 (7) for $\phi 16.5\text{mm}$ Test Tube, ($\phi 16.5 \times h47\text{mm}$) \times 24 holes, "BLT628"	
	DH.WHB521828 (8) for $\phi 18\text{mm}$ Test Tube, ($\phi 18 \times h47\text{mm}$) \times 24 holes, "BLT828"	
	DH.WHB531515 (9) for 15ml Conical Tube, ($\phi 16 \times h47\text{mm}$) \times 15 holes, "BLC515"	
	DH.WHB535008 (10) for 50ml Conical Tube, ($\phi 28.7 \times h47\text{mm}$) \times 8 holes, "BLC008"	
	DH.WHB500101 (11) Spare ; Block Extraction Tongs, "BLE101"	

DAIHAN® SMART Precise Temp/Humidity Chamber "ThermoStable™ STH", 155 · 305 · 420 · 800 Lit
With Smart-Lab™, Auto Supplement Water Tank, Touch-Screen LCD, CFC-Free, -20℃ to 100℃, up to 98% RH, 스마트 항온항습기



SMART Precise Temp. / Humidity Chamber
"ThermoStable™ STH-155"

※ -40~100℃ Upgrade Model
Coming Soon!

- Made in Korea
- PL(Product Liability) Insurance
- with Certificate & Traceability : Controlled by Serial Number, Certificate, Delivery-information, and Traceable Data Base System
- CFC Free Refrigerant (R-404A)
- Smart-Lab™ Controller : Controlled by Smart-Phone
 - Ergonomic 7" Full Touch Screen TFT LCD(Smart-Lab™ Controller)
 - WiRe™ App Service.
 - Self-Diagnostic Function
 - Push Alarm Service to Smart Phone : Power-/Temperature-/Door Open-Error Status
 - Built in USB port for Data Download and Program Upgrade
 - Password Protected Setting
 - Digital Calibration(Offset Function)
 - Door Ajar and Power Failure Alarm
 - Internet Connectivity with WiFi
 - Automatic Data Recording
 - Interactive Temperature Graph
 - Min-/Max-Temperature Memory
 - Program Function
- * Precise Temperature Control (-40℃/-20℃ to 100℃) and Humidity (30% to 98% Relative Humidity)
- * Electronic Humidity Sensor has Excellent Response Time and Durability.
- * CFC-Free Refrigerant (R-404A)
- * Low Water Level Alarm System
- * The Powerful and Silent Dual Fan Motor Assures Temperature Uniformity by Strong Air Circulation (2 ~ 4pcs)
- * Large Clear Viewing Window with Membrane Heating Element (Moisture-Proof)
- * Sliding Water Supply Tank : Auto Water Supplementing System
- * Easy and Safety Door Lock
- * Over Temperature & Over Current Protection, Sensor Error Detection and Leakage Breaking
- * 6 Channels & 2 Pens Temperature & Humidity Recorder(Optional)

Specification

Spec.		Model	ThermoStable™ STH-155 Max. Capa. 155L	ThermoStable™ STH-305 Max. Capa. 305L	ThermoStable™ STH-420 Max. Capa. 420L	ThermoStable™ STH-800 Max. Capa. 800L
Temp. Range			-20℃ to 100℃			
Humidity Range			30% to 98% RH			
Compressor			7/8HP	1.5HP	1.5HP	3HP
Heater	for Temp.		1.5 kW	2.0 kW	2.2 kW	2.5 kW
	for Humi.		2.0 kW	3.0 kW	3.0 kW	3.0 kW
Spec.		Model	ThermoStable™ STH-L155 Max. Capa. 155L	ThermoStable™ STH-L305 Max. Capa. 305L	ThermoStable™ STH-L420 Max. Capa. 420L	ThermoStable™ STH-L800 Max. Capa. 800L
Temp./Humidity Range			-40℃ to 100℃ / 30% to 98% RH			
Compressor			1.5HP	2 HP	3HP	4HP
Heater	for Temp.		1.5 kW	2.0 kW	2.2 kW	2.5 kW
	for Humi.		2.0 kW	3.0 kW	3.0 kW	3.0 kW
Dimension (w×d×h)	Interior (mm)		505×505×610	620×620×800	700×700×820	1,000×800×1,000
	Exterior (mm)		1,100×960×1,550	1,310×1,080×1,765	1,390×1,135×1,690	1,570×1,245×2,060
Capacity			155 Lit	305 Lit	420 Lit	800 Lit
Refrigerant			CFC-Free(R-404A) Refrigeration System			
Temp.	Accuracy		± 0.3℃			
	Stability		± 0.3℃			
Humidity	Accuracy		± 0.3% RH			
	Stability		± 0.3% RH at 70%			
Heat-up Time			35 min (-20℃ to 80℃)			
Cool-down Time			45 min (+20℃ to -20℃)			
Controller & Display			Smart-Lab Controller, 7" Full Touch Screen TFT LCD			
Program Function			Multiple Programs(Patterns by multiple Segments) Supported			
Sensor			PT100 & Capacitive Sensor			
Material	Internal		Stainless-steel (# 304)			
	External		Powder Coated steel			
Shelf			3ea of Perforated Stainless-steel Shelf of Adjustable Position			
Safety Device			Over Temp. and Over Current Protector, Sensor Error and Low Level Detector, Leakage Breaker			
Packing Dimension (w×d×h) (cm)			134 × 116 × 175	152 × 125 × 207	160 × 130 × 202	178 × 141 × 237
Gross Weight			353 kg	369 kg	478 kg	678 kg
Power Consumption			4.7 kW	5.7 kW	6.3 kW	9 kW
			6.2 kW	7.9 kW	9.9 kW	12.7 kW
Electric Repts.			1 Phase AC 120V, 60Hz or AC 230V, 50/60Hz or 3 Phase			

* Other Specifications are available upon Customer's Request.

※ 운임 약 ₩ 95,000 별도!

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Cat. No

Description

Articles

<Continued From... DAIHAN® SMART Precise Temp/Humidity Chamber, "ThermoStable™ STH">

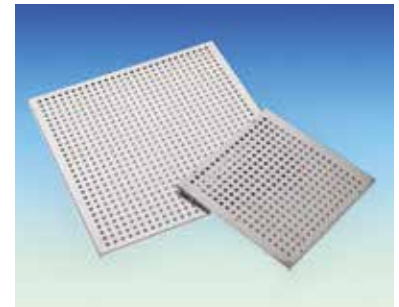
Ordering Information

※ 운임 약 ₩ 70,000 별도!

(1) Programmable Temp./Humidity Chamber, 1 Phase

DH.STH01155	Temp. / Humidity Chamber, "STH-155", -20℃ to 100℃, 155 Lit, 230V
DH.STH01305	, "STH-305", -20℃ to 100℃, 305 Lit, 230V
DH.STH01420	, "STH-420", -20℃ to 100℃, 420 Lit, 230V
DH.STH01800	, "STH-800", -20℃ to 100℃, 800 Lit, 230V
DH.STH02155	Temp. / Humidity Chamber, "STH-L155", -40℃ to 100℃, 155Lit, 230V
DH.STH02305	, "STH-L305", -40℃ to 100℃, 305Lit, 230V
DH.STH02420	, "STH-L420", -40℃ to 100℃, 420Lit, 230V
DH.STH02800	, "STH-L800", -40℃ to 100℃, 800Lit, 230V
DH.STH05155	Temp. / Humidity Chamber, "STH-155", Same as Above, but only 120V
DH.STH05305	, "STH-305", Same as Above, but only 120V
DH.STH05420	, "STH-420", Same as Above, but only 120V
DH.STH05800	, "STH-800", Same as Above, but only 120V
DH.STH06155	Temp. / Humidity Chamber, "STH-L155", Same as Above, but only 120V
DH.STH06305	, "STH-L305", Same as Above, but only 120V
DH.STH06420	, "STH-L420", Same as Above, but only 120V
DH.STH06800	, "STH-L800", Same as Above, but only 120V

Ea. Price, ₩

Perforated Stainless-steel Shelf
(Included)

Auto Water Supplementing System

(2) Programmable Temp./Humidity Chamber, 3Phase, for Customizing

DH.STH07155	Temp. / Humidity Chamber, "STH-155", -20℃ to 100℃, 155 Lit
DH.STH07305	, "STH-305", -20℃ to 100℃, 305 Lit
DH.STH07420	, "STH-420", -20℃ to 100℃, 420 Lit
DH.STH07800	, "STH-800", -20℃ to 100℃, 800 Lit
DH.STH08155	Temp. / Humidity Chamber, "STH-L155", -40℃ to 100℃, 155Lit
DH.STH08305	, "STH-L305", -40℃ to 100℃, 305Lit
DH.STH08420	, "STH-L420", -40℃ to 100℃, 420Lit
DH.STH08800	, "STH-L800", -40℃ to 100℃, 800Lit

Ea. Price, ₩

Spare Perforated Stainless-steel Shelf

DH.WTH11155	Perforated Shelf, Stainless-steel, "THS1155", for 155 Lit, w470 × d480mm
DH.WTH11305	, "THS1305", for 305 Lit, w590 × d580mm
DH.WTH11420	, "THS1420", for 420 Lit, w720 × d640mm
DH.WTH11800	, "THS1800", for 800 Lit, w970 × d980mm

Ea. Price, ₩

Optional Temp & Humidity Recorder and Chart Paper

DH.WTH05100	Temperature & Humidity Recorder, "WTH5100"
DH.WTH05105	Chart Paper, "WTH5105", 33 Days

Ea. Price, ₩

Programmable Temp./Humidity Chamber with Validation (IQ, OQ) Service

DH.STH31155	Validation Service(IQ, OQ), with "STH-155", "STHV1155"
DH.STH31305	, with "STH-305", "STHV1305"
DH.STH31420	, with "STH-420", "STHV1420"
DH.STH31800	, with "STH-800", "STHV1800"
DH.STH32155	Validation Service(IQ, OQ), with "STH-L155", "STHV2155"
DH.STH32305	, with "STH-L305", "STHV2305"
DH.STH32420	, with "STH-L420", "STHV2420"
DH.STH32800	, with "STH-L800", "STHV2800"

Ea. Price, ₩

Temp. & Humidity Recorder
6 Channel 2 Pens(WTH5100)
(Optional)

» DAIHAN WiRe™ App Service

7" Full Touch Screen TFT LCD
(Smart-Lab™ Controller)

WiRe™ App Service

It is possible to monitor and control the Smart-Lab™ equipment through all smart phone, tablet without restraint of time and place.

Controlled by Smart-Phone

DAIHAN® General Purpose SMART Temp/Humidity Chamber “ThermoStable™ STH-E”, 155 · 305 · 420 · 800 Lit
With Smart-Lab™ System, Water Tank, Touch-Screen LCD, CFC-Free, -20℃~80℃ ±0.3℃, up to 95% RH, 스마트 항온항습기



SMART Temp./Humidity Chamber “ThermoStable™ STH-E”

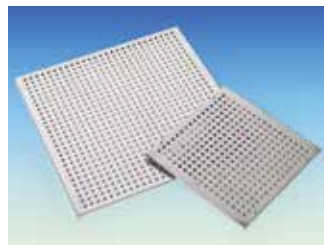
DAIHAN WiRe™ App Service



It is possible to monitor and control the Smart-Lab™ equipment through all smart phone, tablet without restraint of time and place.

7" Full Touch Screen TFT LCD
(Smart-Lab™ Controller)

Controlled by Smart-Phone



(1) Perforated
Stainless-steel Shelf
(Included)



(2) Temp. & Humidity Recorder
6 Channel 2 Pens (WTH5100)
(Optional)

- Made in Korea
- PL(Product Liability) Insurance
- with Certificate & Traceability : Controlled by Serial Number, Certificate, Delivery-information, and Traceable Data Base System
- Economical & Practical Type
- CFC Free Refrigerant (R-404A)
- Smart-Lab™ Controller : Remote Controlled by Smart-Phone with WiRe™ App Service
 - Ergonomic 7" Full Touch Screen TFT LCD
 - Internet Connectivity with WiFi
 - RS232 Interface for Remote Monitoring and Controlling with PC
 - Built in USB port for Data Download and Program Upgrade
 - Password Protected Setting
 - Variable Program Setting for Multiple Patterns with Multiple Segments
 - Self-Diagnostic Function (Push Alarm to Smart Phone) : Door Ajar and Power-/Temp.-Failure Alarm
 - Min-/Max-Temperature Memory and Automatic Data Recording
 - Interactive Temperature Graph
 - Digital Calibration (Offset Function)
- * The Powerful and Silent Dual Fan Motor Assures Temperature Uniformity by Strong Air Circulation
- * Over Temperature and Over Current Protection for User Safety
- * Inner Tempered Glass Door with Silicon Packing
- * Low Water Level Alarm Lamp
- * Temperature & Humidity Recorder (6 Channels & 2Pens) (Optional)

Specifications & Ordering information

※ 운임 약 ₩ 70,000 별도!

Spec.	Model	ThermoStable™ STH-E155 Max. Capa. 155L	ThermoStable™ STH-E305 Max. Capa. 305L	ThermoStable™ STH-E420 Max. Capa. 420L	ThermoStable™ STH-E800 Max. Capa. 800L
Capacity		155 Lit	305 Lit	420 Lit	800 Lit
Temp.	Range	PT100 Sensor, -20℃ ~ +80℃			
	Accuracy	±0.3℃ (Stability ±1.0℃)			
Humidity	Range	30% ~ 95% RH			
	Accuracy	±2% (Stability ±3% RH)			
Dimension (w×d×h)	Interior (mm)	505×505×610	620×620×800	750×660×850	1000×800×1000
	Exterior (mm)	745×920×1645	820×1290×1720	990×1075×1885	1200×1100×1920
Heater	for Temp.	1.5 kW	2.0 kW	2.2 kW	2.5 kW
	for Humi.	2.0 kW	3.0 kW	3.0 kW	3.0 kW
Compressor		7/8HP	1.5 HP	1.5 HP	3 HP
Refrigerant		CFC-Free(R-404A) Refrigeration System			
Controller & Display		Smart-Lab Controller, 7" Full Touch Screen TFT LCD			
Program Function		Multiple Programs(Patterns by multiple Segments) Supported			
Material		Internal : Stainless-steel(# 304), External : Powder Coated steel			
Shelf (included)		3ea of Perforated Stainless-steel Shelf of Adjustable Position			
Safety Device		Hi-Low Temp. Protector, Over Current & Leakage Breaker, Water Level Sensor			
Others		PL(Product Liability) Insurance			
Packing Dimension (w×d×h) (cm)		99×112×185	122×122×205	128×128×216	149×132×220
Net & Gross Weight, kg		290 kg, 355 kg	309 kg, 369 kg	378 kg, 478 kg	558 kg, 678 kg
Power Consumption		4.4 kW	5.7 kW	6.3 kW	8.2 kW
Electric Reqt.		1 Phase AC 120V, 60Hz or AC 230V, 50/60Hz or 3 Phase			
Cat. No.	230V	DH.STHE0155	DH.STHE0305	DH.STHE0420	DH.STHE0800
	120V	DH.STHE4155	DH.STHE4305	DH.STHE4420	DH.STHE4800
	3Phase	DH.STHE5155	DH.STHE5305	DH.STHE5420	DH.STHE5800
Price, Each. ₩					

Validation (IQ, OQ) Service Economic Temp./Humidity Chamber

DH.STHE3155	Validation Service(IQ, OQ), with "STH-E155", "STHEV155"	Ea. Price, ₩
DH.STHE3305	, with "STH-E305", "STHEV305"	
DH.STHE3420	, with "STH-E420", "STHEV420"	
DH.STHE3800	, with "STH-E800", "STHEV800"	

Spare Perforated Stainless-steel Shelf

DH.WTH11155	(1) Perforated Shelf, "THS1155", for 155 Lit, 470×480mm	Ea. Price, ₩
DH.WTH11305	, "THS1305", for 305 Lit, 590×580mm	
DH.WTH11420	, "THS1420", for 420 Lit, 720×640mm	
DH.WTH11800	, "THS1800", for 800 Lit, 970×980mm	

Optional Temp & Humidity Recorder and Chart Paper

DH.WTH05100	(2) Temperature & Humidity Recorder, "WTH5100"	Ea. Price, ₩
DH.WTH05105	Chart Paper, "WTH5105", 33 Days	

DAIHAN® SMART Low Temperature(B.O.D) Incubator "ThermoStable™ SIR", 150 · 250 · 420 · 700 Lit
With Smart-Lab™ Controller, 4" Full Touch Screen, Fuzzy-PID Control, CFC-free(R-404A), 0~60℃, ±0.2℃, with Certi. & Traceability
스마트 저온(B.O.D) 배양기/인큐베이터, 강제 순환식, 우수한 온도정확성, 친환경 냉매 채용, WiRe™서비스, 4인치 풀터치스크린 조절기



SMART Low Temperature(B.O.D) Incubator
"ThermoStable™ SIR-150"

» DAIHAN WiRe™ App Service



4" Full Touch Screen TFT LCD
(Smart-Lab™ Controller)

It is possible to monitor and control the Smart-Lab™ equipment through all smart phone, tablet without restraint of time and place.

Controlled by Smart-Phone



- Made in Korea
- CE Certified
- with Certificate & Traceability : Controlled by Serial Number, Certificate, Delivery-information, and Traceable Data Base System
- Air Flow ; Forced Air-type
- CFC-free (R-404A) Refrigeration System
- Digital Fuzzy Control System Implementing Superior Temperature Accuracy
- Smart-Lab™ Controller : Remote Controlled by Smart-Phone with WiRe™ App Service
 - Ergonomic 4" Full Touch Screen TFT LCD
 - Internet Connectivity with WiFi
 - RS232 Interface for Remote Monitoring and Controlling with PC
 - Automatic Data Recording
 - Built in USB port for Data Download and Program Upgrade
 - Self-Diagnostic Function
 - Variable Program Setting for Multiple Patterns with Multiple Segments

- * Variable Application : Animal/Plant Cell Culture, Constant Temp. Germination Test, BOD Test, etc.
- * Stainless-steel Chamber and PE-coated Shelves
- * Compact New Body Design
- * Intelligent Control of Refrigerator for Preventing Overload of Compressor
- * Over Temperature & Over Current Protection, Sensor Error Detection and Leakage Breaking.

Specifications & Ordering information

※ 운임 약 ₩ 50,000 별도!

Spec.	Model	ThermoStable™ SIR-150 Max. Capa. 155L	ThermoStable™ SIR-250 Max. Capa. 250L	ThermoStable™ SIR-420 Max. Capa. 420L	ThermoStable™ SIR-700 Max. Capa. 700L
Capacity		150 Lit	250 Lit	420 Lit	700 Lit
Temp. Range & Accuracy		0℃ ~ 60℃, ± 0.2℃ at 37℃			
Temp. Uniformity & Sensor		± 0.5℃ at 37℃, ± 1.4℃ at 50℃, PT100 Sensor			
Heat-up Time		20 min. to 37℃ 20 min. to 50℃		35 min. to 37℃ 35 min. to 50℃	
Recovery Time (Door open 30sec)		10 min. to 37℃ 12 min. to 50℃		12 min. to 37℃ 15 min. to 50℃	
Heating Power/Consumption		700 W	1 kW	1.2 kW	2 kW
Compressor		1/4HP	1/3HP	1/2HP	1/2HP
Compressor Control		Intelligent Control of Refrigerator for preventing Overload of Compressor			
Refrigerant		CFC-Free(R-404A) Refrigeration System			
Timer & Alarm		99hr 59min (with delay / Continuous run.), Error status & Timer-end			
Display & Controller		4" Full Touch Screen TFT LCD, Smart-Lab™ Controller			
Inner Door		with 1ea of Inner Tempered Glass Door			
Shelf		Included 3ea of PE-coated steel Shelf			
Permitted		Total Load Total Load : 48 kg (16kg × 3 Shelf)			
Safety Circuit		Over Temp. and Over Current Protector, Sensor Error Detector			
Material		Internal : Stainless-steel (# 304), External : Powder Coated steel			
Dimension (w × d × h)	Interior (mm)	505 × 505 × 610	505 × 505 × 1,000	705 × 605 × 1,000	800 × 700 × 1,250
	Exterior (mm)	640 × 832 × 1,313	640 × 832 × 1,703	840 × 932 × 1,753	935 × 1,027 × 2,000
Net Weight / Gross Weight		118 kg / 191 kg	157 kg / 217 kg	202 kg / 277 kg	234 kg / 313 kg
Packing Size (w × d × h) (mm)		900 × 1,000 × 1,650	900 × 1,000 × 2,040	1,100 × 1,100 × 2,140	1,220 × 1,220 × 2,260
Power Consumption		1.6 kW	1.8 kW	2.3 kW	2.4 kW
Electric Reqts.		1 Phase, AC 120 V, 60 Hz or AC 230 V, 50 / 60 Hz			
Cat. No.	230V	DH.SWIR03150	DH.SWIR03250	DH.SWIR03420	DH.SWIR03700
	120V	DH.SWIR04150	DH.SWIR04250	DH.SWIR04420	DH.SWIR04700
Price, Each. ₩					

Validation (IQ, OQ) Service Low Temp(B.O.D) Incubator

	Ea. Price, ₩
DH.SWIR31150 Validation Service(IQ, OQ), with "ThermoStable SIR-150", "SIRV150"	
DH.SWIR31250 , with "ThermoStable SIR-250", "SIRV250"	
DH.SWIR31420 , with "ThermoStable SIR-420", "SIRV420"	
DH.SWIR31700 , with "ThermoStable SIR-700", "SIRV700"	

Spare PE-coated Steel Wire Shelf

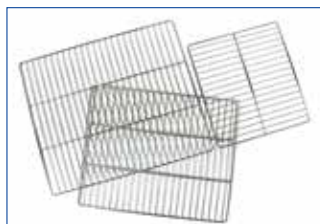
	Ea. Price, ₩
DH.WIR11150 (1) Wire Shelf, "IRS150", 470 × 480mm, for "SIR-150", "SIR-250"	
DH.WIR11420 , "IRS420", 675 × 585mm, for "SIR-420"	
DH.WIR11700 , "IRS700", 770 × 680mm, for "SIR-700"	

Optional Stainless-steel Wire Shelf

	Ea. Price, ₩
DH.WIR21150 (2) Wire Shelf, "IRU150", 470 × 480mm, for "SIR-150", "SIR-250"	
DH.WIR21420 , "IRU420", 675 × 585mm, for "SIR-420"	
DH.WIR21700 , "IRU700", 770 × 680mm, for "SIR-700"	



(1) Wire Shelf
PE Coated steel
(Included)

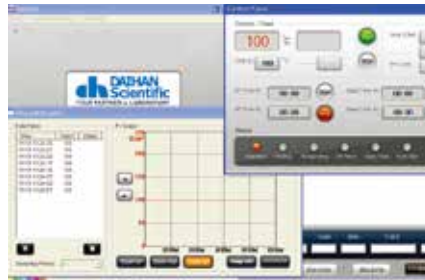


(2) Wire Shelf
Stainless-steel
(Optional)

DAIHAN® Low Temperature(B.O.D) Incubator “ThermoStable™ IR”, **Class-I Medical Device(NIDS)**, 0~60℃, ±0.2℃
 With 3 Wire Shelf, Digital PID Control, CFC-free Refrigeration(R-404A) System, Forced-air, 150 · 250 · 420 · 700 Lit
 저온(B.O.D) 배양기/인큐베이터, 강제 순환식, 우수한 온도정확성, 친환경 냉매 채용



Low Temperature(B.O.D) Incubator
 “ThermoStable™ IR-150”



WiseRemote Control Software :

Connection of Temperature Devices
 with Interface RS232C to a PC
 Export Recorded Data(Excel Spreadsheet)

* You can Download this Software from
 DAIHAN-Sci.com Shopping-mall

- Made in Korea ■ UL / CUL Certified ■ CE Certified
 - with Certificate & Traceability : Controlled by Serial Number,
 Certificate, Delivery-information, and Traceable Data Base System
 - Intelligent Control of Refrigerator for Preventing Overload of Compressor
 - CFC-free (R-404A) Refrigeration System
 - Digital PID Control System Implementing Superior Temperature Accuracy
 - Patented Jog-Dial Control System ■ PL(Product Liability) Insurance
- * Variable Application : Animal & Plant Cell Culture, Constant Temperature, Germination Test, BOD Test, and so on
 * RS232C Interface for Monitoring and Controlling with PC
 * Superior Temperature Uniformity by Forced-air
 * Stainless-steel Chamber and PE-coated Shelves
 * Over Temperature & Over Current Protection, Sensor Error Detection and Leakage Breaking.
 * Storage Function : Alarm & Timer * Back-Light LCD
 * Locking Mode Supported for Experimental Safety (Input to Jog-Dial can be Disabled)
 * CFC-free (R-404A) Refrigeration System. * Compact New Body Design

Specifications & Ordering information

Spec.	Model	ThermoStable™ IR-150 Max. Capa. 150L	ThermoStable™ IR-250 Max. Capa. 250L	ThermoStable™ IR-420 Max. Capa. 420L	ThermoStable™ IR-700 Max. Capa. 700L
Capacity		150 Lit	250 Lit	420 Lit	700 Lit
Air Flow-type		Forced-air Type			
Temp. Range & Accuracy		0℃ ~ 60℃, ± 0.2℃ at 37℃			
Temp. Uniformity & Sensor		± 0.5℃ at 37℃, ± 1.4℃ at 50℃, PT100 Sensor			
Heat-up Time		20 min. to 37℃ 20 min. to 50℃		35 min. to 37℃ 35 min. to 50℃	
Recovery Time (Door open 30sec)		10 min. to 37℃ 12 min. to 50℃		12 min. to 37℃ 15 min. to 50℃	
Heating Power/Consumption		700 W	1 kW	1.2 kW	2 kW
Compressor		1/4HP	1/3HP	1/2HP	1/2HP
Compressor Control		Intelligent Control of Refrigerator for preventing Overload of Compressor			
Refrigerant		CFC-Free(R-404A) Refrigeration System			
Timer & Alarm		99hr 59min (with delay / Continuous run.), Error status & Timer-end			
Display		Digital LCD with Back Light			
Controller		Digital PID Controller with Jog-Shuttle Switch (Turn & Push)			
Inner Door		with 1ea of Inner Tempered Glass Door			
Shelf		Included 3ea of PE-coated steel Shelf			
Permitted Total Load		Total Load : 48 kg (16kg×3 Shelf)			
Safety Circuit		Over Temp. and Over Current Protector, Sensor Error Detector			
Material		Internal : Stainless-steel (# 304), External : Powder Coated steel			
Dimension (w×d×h)	Interior (mm)	505×505×610	505×505×1,000	705×605×1,000	800×700×1,250
	Exterior (mm)	640×832×1,313	640×832×1,703	840×932×1,753	935×1,027×2,000
Net Weight		118 kg	157 kg	202 kg	234 kg
Packing Size (w×d×h) (mm) & Gross Weight		900×1,000×1,650 191 kg	900×1,000×2,040 217 kg	1,100×1,100×2,140 277 kg	1,220×1,220×2,260 313 kg
Power Consumption		1.6 kW	1.8 kW	2.3 kW	2.4 kW
Electric Reqts.		1 Phase, AC 120 V, 60 Hz or AC 230 V, 50 / 60 Hz			
Cat. No.	230V	DH.WIR03150	DH.WIR03250	DH.WIR03420	DH.WIR03700
	120V	DH.WIR04150	DH.WIR04250	DH.WIR04420	DH.WIR04700
Price, Each. ₩					

* Other Specifications are available upon Customer's Request.

※ 운임 약 ₩ 50,000 별도!

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Cat. No	Description	Articles
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<Continued From... DAIHAN® Low Temperature(B.O.D) Incubator “ThermoStable™ IR”>

Spare PE-coated Steel Wire Shelf

DH.WIR11150	Wire Shelf, PE Coated steel, “IRS150”, w470×d480mm, for “IR-150”, “IR-250”	Ea. Price, ₩
DH.WIR11420	Wire Shelf, PE Coated steel, “IRS420”, w675×d585mm, for “IR-420”	
DH.WIR11700	Wire Shelf, PE Coated steel, “IRS700”, w770×d680mm, for “IR-700”	

Optional Stainless-steel Wire Shelf

DH.WIR21150	(1) Wire Shelf, Stainless-steel, “IRU150”, w470×d480mm, for “IR-150”, “IR-250”	Ea. Price, ₩
DH.WIR21420	(1) Wire Shelf, Stainless-steel, “IRU420”, w675×d585mm, for “IR-420”	
DH.WIR21700	Wire Shelf, Stainless-steel, “IRU700”, w770×d680mm, for “IR-700”	

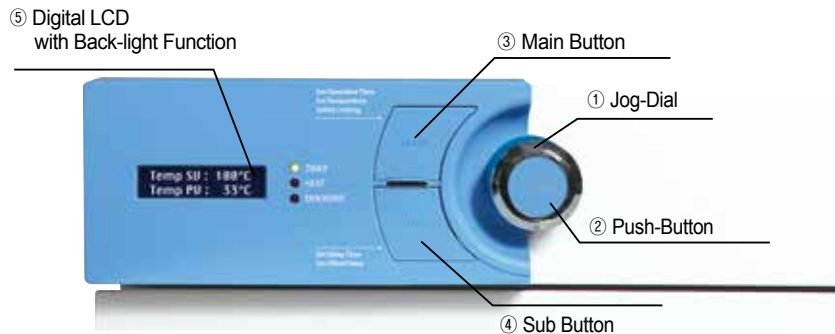
Low Temp(B.O.D) Incubator with Validation (IQ, OQ) Service

DH.WIR31150	Validation Service(IQ, OQ), with “ThermoStable IR-150”, “IRV150”	Ea. Price, ₩
DH.WIR31250	, with “ThermoStable IR-250”, “IRV250”	
DH.WIR31420	, with “ThermoStable IR-420”, “IRV420”	
DH.WIR31700	, with “ThermoStable IR-700”, “IRV700”	



Low Temperature(B.O.D) Incubator
“ThermoStable IR-150”

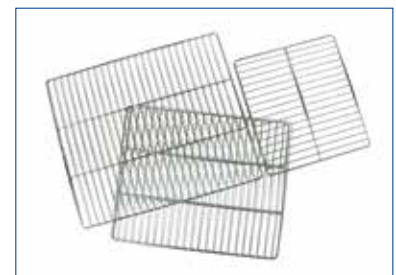
>> New Jog-Dial Controller



- Provides the user interface with an ergonomic design for users to operate in an easy and convenient way.
- A new 2-way Jog-Dial Knob (Jog Dial + Push Button) and presents excellent durability and mobility.
- High-quality LCD with Back-light function.
- A durable Main Button and a Sub Button that features superb and user-friendly operation.



Wire Shelf, PE Coated steel
(Included)



(1) Wire Shelf, Stainless-steel
(Optional)

DAIHAN® SMART Plant Growth Chamber “ThermoStable™ GC”, Smart-Lab™ System, 432 · 864 Lit
 With Smart-Lab™ Controller, CFC-Free, 0~12,000- or 15,000-Lux, 30~95% RH, 10~60℃, with Certi. & Traceability
 스마트 식물 생산상, 스마트랩 컨트롤러, 정밀한 온도/습도/조도 조절, WiRe™서비스, 7인치 풀터치스크린 스마트랩 조절기



(1) SMART Plant Growth Chamber
 “ThermoStable™ GC-450”



Main Display of Smart-Lab™ Controller



Graph Display of Smart-Lab™ Controller



Program Set Display of Smart-Lab™ Controller

- Made in Korea ■ CE Certified ■ PL(Product Liability) Insurance
- with Certificate & Traceability : Controlled by Serial Number, Certificate, Delivery-information, and Traceable Data Base System
- Suitable for Plant Growth, Stability, Product Self-life QC Testing
- Ergonomic Screen Design 7" Full Touch Screen TFT LCD (Smart-Lab™ Controller) : Controlled by Smart-Phone
- WiRe™ App Service. ■ Automatic Data Recording
- Self-Diagnostic Function
- Variable Program Setting for Multiple Patterns with Multiple Segments
- The Recorded Data could be transferred to PC by USB memory
- Controller SW can be upgraded through USB port.
- * Inner Tempered Glass Door with Silicone Packing offers easy Observation without Door Opening
- * Humidity Control by Capacitive Humidity Sensor provides Accurate Control from 30 to 95%RH
- * Smart-Lab™ Controller Provides Precise Temperature, Relative Humidity and Illumination Control - Maintain Uniformity and Accuracy of Growth Circumstance
- * 3-/4- Side Light Bank System : Intensity of Light is controlled by 8-levels and Displayed on LCD
- * Over Temperature & Over Current Protection, Sensor Error Detection, Leakage Breaking

Specification

Spec.	Model	(1) “ThermoStable™ GC-450” Max. Capa. 432 Lit	(2) “ThermoStable™ GC-1000” Max. Capa. 864 Lit
Capacity		432 Lit	864 Lit
Temp.	Range & Variation	10℃ ~ 60℃, ±1℃ at 20℃	
	Fluctuation	± 0.5℃ at 10℃, ± 0.5℃ at 25℃ (0% light intensity) ± 1℃ at 10℃, ± 1℃ at 25℃ (100% light intensity)	
Humidity	Range & Variation	30% ~ 95% RH, ±3% at 60℃	
	Fluctuation	±1%	
	Humidifier	Evaporation by Fan with Heater	
Illumination	Range	0 to 12,000 Lux	0 to 15,000 Lux
	Lamp	FPL 55W×14	FPL 55W×28
	Bank	3 Side Walls	
Temp. & Humidity Sensor		Temp. : PT100, Humidity : Capacitive Sensor	
Heat-up Time (up to 37℃)		11 min. (0 % illumination) / 9 min. (100 % illumination)	
Cool-down Time (down to 10℃)		13 min. (0 % illumination) / 15 min. (100 % illumination)	
Temp. Recovery (After Door was opened for 30sec)		3 min. at 10℃, 1 min. at 37℃ (0 % illumination) 5 min. at 10℃, 1min. at 37℃ (100 % illumination)	
Heating Power /Consumption	for Temp.	1.5 kW	3.0 kW
	for Humi.	1.5 kW	3.0 kW
Compressor		1/2HP	1HP
Refrigerant		CFC-Free(R-404A) Refrigeration System	
Display		7" Full Touch Screen TFT LCD (Smart-Lab™ Controller)	
Controller		Smart-Lab™ Controller	
Program Function		Temperature and Humidity : 120 Patterns, 1,200 Segments Light Bank : 7 steps	
Door	Internal	Tempered Safety Glass with Silicon Packing	
	External	3-Side Magnetic Packing Door with Light Bank	
Shelf		4×PE-coated Steel Shelf	8×PE-coated Steel Shelf
Permitted Total Load		64 kg (16kg×4 Shelves)	128 kg (16kg×8 Shelves)
Safety Circuit		Over Temp Protector, Over Current & Leakage Breaker	
Material		Internal : Stainless-steel (# 304), External : Power Coated steel	
Dimension (w×d×h)	Interior (mm)	650×700×1,050	1,200×790×1,050
	Exterior (mm)	850×1,090×1,965	1,400×1,150×1,965
Packing Size & Gross Weight		1,400×1,220×h2,210mm, 435 kg	1,600×1,500×h2,200mm, 585 kg
Power Consumption		4.8 kW	6.5 kW
Power Supply*		1 Phase AC 120V, 60Hz or AC 230V, 50/60Hz or 3 Phase	

* Other Specifications are available upon Customer's Request.

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Cat. No	Description	Articles
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<Continued From...DAIHAN® SMART Plant Growth Chamber "ThermoStable™ GC">

Ordering Information

※ 운임 약 ₩ 90,000 별도!

(1) 432 Lit Plant Growth Chamber "ThermoStable™ GC-450", 0~12,000 Lux

DH.SWGC00450* Plant Growth Chamber, 230V, "ThermoStable GC-450"
 DH.SWGC50450* , 120V, "ThermoStable GC-450"
 DH.SWGC60450* , 3 Phase, "ThermoStable GC-450"

Ea. Price, ₩

(2) 864 Lit Plant Growth Chamber "ThermoStable™ GC-1000", 0~15,000 Lux

DH.SWGC01000* Plant Growth Chamber, 230V, "ThermoStable GC-1000"
 DH.SWGC61000* , 3 Phase, "ThermoStable GC-1000"

Ea. Price, ₩

*-marks : Included Water Tank(with Silicon Tube) and Lux Meter

Spare Wire Shelf, PE Coated steel

DH.WGC10450 Wire Shelf, PE Coated, w640×d620mm, "GCS450", for 432Lit
 DH.WGC11000 , w580×d620mm, "GCS1000", for 864Lit

Ea. Price, ₩

Validation (IQ, OQ) Service

DH.SWGC30450 Validation Service(IQ, OQ), with "ThermoStable GC-450", "SGCV450"
 DH.SWGC31000 , with "ThermoStable GC-1000", "SGCV1000"

Ea. Price, ₩



(1) SMART Plant Growth Chamber "ThermoStable™ GC-450"

>> DAIHAN WiRe™ App Service



7" Full Touch Screen TFT LCD
(Smart-Lab™ Controller)

It is possible to monitor and control the Smart-Lab™ equipment through all smart phone, tablet without restraint of time and place.



WiRe™ App Service

Controlled by Smart-Phone



Wire Shelf, PE-coated steel
(Included)

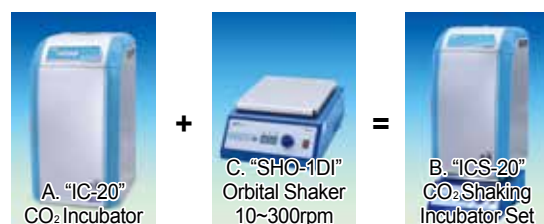


Water Tank/Silicon Tube/Lux Meter
(Included)

DAIHAN® 4~45°C & 0~10% CO₂ 20Lit Mini CO₂ Incubator & CO₂ Shaking Incubator, "ThermoStable™ IC-20 & ICS-20"
Programmable PID Controlled 0.1°C & 0.1%, Compact Design for Saving Space/Money, Ideal for Cell/Tissue Culture **NEW**
With Cooling/Heating system of Peltier Element/Auto-Tuning/Safety Device, 저온 미니 CO₂ 배양기 & CO₂ 진탕 배양기



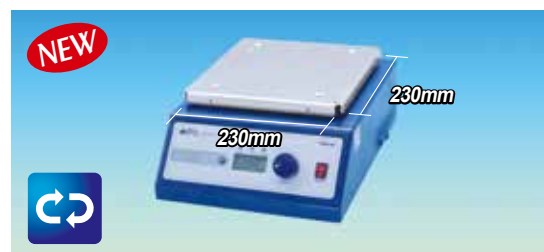
A. 20Lit Mini CO₂ Incubator "ThermoStable™ IC-20"
Including CO₂ Gas Cylinder & Regulator



Figure; Assembly CO₂ Shaking Incubator
You can easily connect the Incubator & Shaker



B. "ICS-20" CO₂ Shaking Incubator Set



C. "SHO-1DI" Separable Orbital Shaker
; It can be Used Individually and Be Accepted

- A. Standard CO₂ Incubator "ThermoStable™ IC-20"**
Including CO₂ Regulator & CO₂ Aluminum Cylinder
- B. Assembly CO₂ Shaking Incubator Package Set "ThermoStable™ ICS-20"**
= Standard CO₂ Incubator "IC-20" + Orbital Shaker "SHO-1DI"
- C. Multiuse Digital Orbital Motion Shaker "SHO-1DI" : Can Be Used Individually.**
"SHO-1DI" is same with existing Orbital Shaker "SHO-1D" except Platform, and can be Accepted
Optional Various Platforms ; See the Shaker Section
- **Made in Korea** ■ **PL(Product Liability) Insurance** ■ **2-Year Warranty**
 - **Applications : Cell/Tissue Culture & Transfer, Embryo/Microorganism Culture**
 - **NDIR CO₂ Sensor : Dual Wavelength Type**
Rapid Initial Response Time, not Affected by User Environment
 - **ABS-Resin Chamber & Housing : Light-weight/Compact Design**
Good for Money & Space Saving and Personal Use.
 - **Certificate & Traceability : Controlled by Serial Number, Certificate, Delivery-Information, and Traceable Data Base System.**
- * Cooling/Heating System of PELTIER ELEMENT :
 - Cooling and Heating by using Thermoelectric Semiconductor Element
 - Minimizes Noise(<20dB) and Power Consumption
 - * Auto-Tuning : Rapid Response and High Stability According to the Thermal Properties and the Rate of Thermal Response of the Object
 - * Safety Device : Over Temperature & Over Current Protection, Sensor Error Detection
 - * 4-Connection Device to Join a Shaker "SHO-1DI" in the Bottom outside of the CO₂ Incubator "IC-20"

Specifications & Ordering Information

Spec.	Model	A. CO ₂ Standard Incubator "ThermoStable™ IC-20"	B. CO ₂ Shaking Incubator Set "ThermoStable™ ICS-20"
Capacity (Lit)		20Lit Working Chamber	
Temp. Range		4 ~ 45°C, 0.1°C; Digital PID Control	
Accuracy		± 0.2°C (No Load)	
Uniformity		± 0.2°C (at 37°C)	
CO ₂ Range & Control		0 ~ 10%, 0.1% ; NDIR CO ₂ Sensor	
Cooling/Heating		Peltier Element Module	
Air Flow-type		Gravity Flow Circulation	
1 Shelf and 3 Location Brackets		1 Perforated ABS Shelf(w210×d230×Thick 8mm) included Adjustable Shelf Location Height of 3-Stage	
Condensate Drain		Natural Evaporation	
Incubator Material		"ABS-Resin" Chamber & Housing, Except Shaking Base	
Incubator Dimension	Interior	w213×d265×h360mm Chamber Only	
	Exterior	w280×d330×h510mm	w280×d330×h670mm; Including Shaking Base
C. SHAKING-Base; Connecting the Multiuse Shaking "SHO-1DI"			
- Motion & Speed		-	- Orbital, 10 ~ 300rpm, 8mm Stroke
- Controller & Display			- Programmable Digital Feedback, LCD
- Timer & Alarm			- 99hr 59min with ∞ Run, Error Status & Time End
- Motor & Max-Load			- Brushless DC Motor, Max-Load 10kg
- Safety Circuit			- Overload Protector of Motor
- Material			- Powder Coated Steel Body
- Size & Weight			- w260×d330×h140mm, 14kg
Net Weight (kg)		10kg	10kg + 14kg Shaking Base ("SHO-1DI") = 24kg
Power Consumption		56W	56W + 40W (Shaking)
Electric Reqts.		Free Voltage; 1Phase, AC90-240V, 50/60Hz	
Cat. No.	230V	DH.IncC020	DH.IncCS020
	120V	DH.IncC020.1	DH.IncCS020.1
Price, Set. ₩			

C. SHAKING-Base; Orbital Shaker

DH.SHO01DI Shaker "SHO-1DI", 230V
 DH.SHO01DI.1 , 120V

Ea. Price, ₩

※ Note! Details of Optional Various Platforms : See The "Shaker" Section

DAIHAN® 4~45°C 20 Lit Mini-Low Temperature Incubator & Shaking Incubator, "ThermoStable™ IR-20 & IRS-20" ^{NEW}
 2-Step Programmable PID Controlled 0.1°C, Compact Design for Saving Space/Money, Ideal for Culture & Storage of Microorganism/Clone
 With Cooling/Heating system of Peltier Element/Auto-Tuning/Safety Device, 저온 미니-배양기&진탕 배양기, 20Lit, 4~45°C/0.1°C



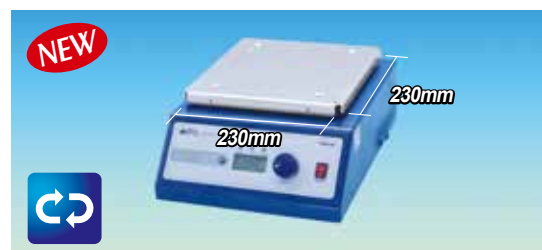
A. 20Lit Mini-Low Temp Incubator
"ThermoStable™ IR-20"



Figure; Assembly Shaking Incubator
You can easily connect the Incubator & Shaker



B. "IRS-20" Low Temp. Shaking Incubator Set



C. "SHO-1DI" Separable Orbital Shaker
; It can be Used Individually and Be Accepted

A. Standard Incubator "ThermoStable™ IR-20"

B. Assembly Shaking Incubator Package Set

"ThermoStable™ IRS-20" = "IR-20" Incubator + Orbital Shaker "SHO-1DI"

C. Multiuse Digital Orbital Motion Shaker "SHO-1DI" : Can be Used Individually.

It is same with existing Orbital Shaker "SHO-1D" except Platform and The Shaker "SHO-1DI" can be Accepted Optional Various Platforms; See "Shakers" Section

- Made in Korea ■ PL(Product Liability) Insurance ■ 2-Year Warranty
- Applications Microorganism / Clone Culture & Storage, Reaction Experiment of Enzyme Immunity & Bacteriophage in Vitro Packaging, DNA Ligation, etc.
- 2-Step Temperature Control(PID Micro Processor) ; With 2-Step Setting Temp. Microorganism is Cultivated and Preserved by One Time(Setting time 99 hours)
- ABS-Resin Chamber & Housing; Light-weight / Compact Design Good for Money & Space Saving and Personal Use.
- Certificate & Traceability : Controlled by Serial Number, Certificate, Delivery-Information, and Traceable Data Base System.

* Cooling / Heating System of PELTIER ELEMENT;

- Cooling and Heating by using Thermoelectric Semiconductor Element
- Minimizes Noise (<20dB) and Power Consumption

* Auto Tuning : Rapid Response and High Stability According to the Thermal Properties and the Rate of Thermal Response of the Object

* Safety Device : Over Temperature & Over Current Protection, Sensor Error Detection

* There are 4-Connection Device to Join a Shaker "SHO-1DI" in the Bottom outside of the Incubator "IR-20"

Specifications & Ordering Information

Spec.	Model	A. Standard Incubator "ThermoStable™ IR-20"	B. Shaking Incubator Set "ThermoStable™ IRS-20"
Capacity (Lit)		20Lit Working Chamber	
Temp. Range		4°C ~ 45°C, 0.1°C; Digital PID Control	
Accuracy		± 0.2°C (No Load)	
Uniformity		± 0.2°C (at 37°C)	
Cooling / Heating		Peltier Element Module	
2-Step Operation		Ideal for Cultivation and Preservation	
Air Flow-type		Gravity Flow Circulation	
1 Shelf and 3 Location Brackets		1 Perforated ABS Shelf(w210×d230×Thick 8mm) included Adjustable Shelf Location Height of 3-Stage	
Condensate Drain		Natural Evaporation	
Incubator Material		"ABS-Resin" Chamber & Housing, Except Shaking Base	
Incubator	Interior	w213×d265×h360mm Chamber Only	
Dimension	Exterior	w280×d330×h510mm	w280×d330×h670mm; Including Shaking Base
C. SHAKING-Base; Connecting the Multiuse Shaking "SHO-1DI"			
- Motion&Speed		-	- Orbital, 10 ~ 300rpm, 15mm Stroke
- Controller&Display			- Programmable Digital Feedback, LCD
- Timer&Alarm			- 99hr 59min with ∞ Run, Error Status & Time End
- Motor&Max-Load			- Brushless DC Motor, Max-Load 10kg
- Safety Circuit			- Overload Protector of Motor
- Material			- Powder Coated Steel Body
- Size&Weight			- w260×d330×h140mm, 14kg
Net Weight (kg)		7kg	7kg+14kg Shaking Base ("SSO-1DI") = 21kg
Packing Size & Weight		9kg	25kg
Power Consumption		56W	56W+40W (Shaking)
Electric Reqs.		Free Voltage; 1Phase, AC90-240V, 50 / 60Hz	
Cat. No.	230V	DH.IncR020	DH.IncRS020
	120V	DH.IncR020.1	DH.IncRS020.1
Price, Set. ₩			

C. SHAKING-Base; Orbital Shaker

DH.SHO01DI Shaker "SHO-1DI", 230V
 DH.SHO01DI.1 , 120V

Ea. Price, ₩

※ Note! Details of Optional Various Platforms : See The "Shaker" Section

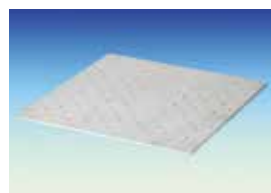
DAIHAN® Precise Shaking Incubator “ThermoStable™ IS-20”, BenchTop-type, up to 60℃ & 1000ml
With Universal Platform, Fuzzy Control, RS232C Interface for PC, Orbital Motion, 30~250 rpm, 101 Lit
진탕 배양기/인큐베이터, 벤치 탑 타입, 고정밀 디지털 퍼지 제어, Universal Platform 포함



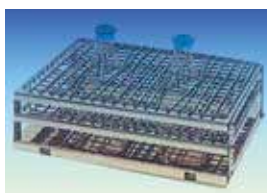
A. “IS-20” R/T $\pm 5^{\circ}\text{C}$ ~ 60℃
B. “IS-20R” 10℃ ~ 60℃ Refrigerated



WiseRemote Control Software :
Download from DAIHAN-Sci.com



(1) Universal Platform
“SP600” (Included)



(2) Universal Spring Rack
Platform “SR500” (Optional)



STS Flask Holder w/Spring Ring
(Optional)

- Made in Korea
- CE Certified
- PL (Product Liability) Insurance
- with Certificate & Traceability : Controlled by Serial Number, Certificate, Delivery-information, and Traceable Data Base System
- Useful for Biological Cultures under various Temperature
- Patented Jog-Shuttle Control System
- Stabilized Orbital Motion

- * Precise Temperature Control by Digital Fuzzy Controller, up to 60℃, PT100 Sensor
- * Advanced Shaking Mechanism Provides Quiet Shaking and Precise Speed Control
- * Automatic Stop of Shaking, Heating and Refrigeration when a Door opens
- * Over Temperature & Over Current Protection, Sensor Error Detection and Leakage Breaking
- * Accommodate Flasks up to 1,000ml
- * Minimum Noise and No Vibration
- * RS232C Interface for Monitoring and Controlling with PC
- * Universal Spring Rack for Various Shapes/Sizes of Flasks (Optional)

Specifications & Ordering information

Spec.	Model	A. “ThermoStable™ IS-20”	B. “ThermoStable™ IS-20R” with Refrigerator
Temp. Range		Room Temp. +5℃ ~ 60℃	10℃ ~ 60℃
Temp. Accuracy & Uniformity		Accuracy : $\pm 0.2^{\circ}\text{C}$ at 37℃, Uniformity : $\pm 0.5^{\circ}\text{C}$ at 37℃	
Capacity		101Lit	
Temp. Sensor		PT100 Sensor	
Heater		500 W	700 W
Compressor		None	1/4 HP
Compressor Control		None	Intelligent Control of Refrigerator for preventing Overload of Compressor
Refrigerant		None	CFC-Free(404A) Refrigeration System
Shaking Speed & Stroke		30 ~ 250 rpm, 25mm, Orbital Motion	
Timer & Alarm		99hr 59min (with Continuous run.), Error status & Timer-end	
Display		Digital LCD with Back-Light Function	
Controller		Digital Fuzzy Controller with Jog-Shuttle Switch (Turn+Push)	
Room Lamp		60W Krypton Lamp	
Platform(Included) & Capacity for Optional Flask Holders		Universal Platform for Various Shapes & Sizes of Flasks Capacity : 32 ea Flask Holders for 50~100ml Flask 20 ea Flask Holders for 200~300ml Flask 16 ea Flask Holders for 500~1,000ml Flask	
Safety Circuit		Over Temp./ Current Protector, Leakage Breaker, Sensor Error Detector	
Material		Internal : Stainless-steel (# 304), External : Powder Coated steel	
Dimension		Internal : 530×530×h350mm, External : 575×855×h850mm	
Packing Size (w×d×h) (mm)		1,000×800×h1,100mm	
& Gross Weight		147 kg	150 kg
Power Consumption		500 W	1.2 kW
Electrical Reqs.		1 Phase, AC 120 V, 60 Hz or AC 230 V, 50 / 60 Hz	

Cat. No.	60Hz	230V	DH.WIS00220	DH.WIS01220
		120V	DH.WIS00120	DH.WIS01120
	50Hz	230V	DH.WIS00520	DH.WIS01520
		120V	DH.WIS00420	DH.WIS01420

Price, Each. ₩

* Other Specifications are available upon Customer's Request.

※ 운임 약 ₩ 40,000별도!

C. Validation (IQ, OQ) Service Shaking Incubator

DH.WIS32010 Validation Service(IQ, OQ), with “IS-20”, 60Hz, “ISV2010”
DH.WIS32011 , with “IS-20R”, 60Hz, “ISV2011”

Ea. Price, ₩

Optional Spring Rack Platform and Stainless-steel Flask Holder(w/Spring Ring)

- DH.WIS504600 (1) Spare Universal Platform, 478×478mm, “SP600”, for “IS-20(R)”, Included
DH.WIS504500 (2) Spare Universal Spring Rack, 483×483×h135mm, “SR500”, for “IS-20(R)”
DH.WIS600100 (3) STS Wire Spring Flask Holder, for 100ml Flask, “FHS100”, for “SHO”, “SHR” and “IS”
DH.WIS600250 (4) , for 250ml Flask, “FHS250”, for “SHO”, “SHR” and “IS”
DH.WIS600500 (5) , for 500ml Flask, “FHS500”, for “SHO”, “SHR” and “IS”
DH.WIS601000 (6) , for 1000ml Flask, “FHS1000”, for “SHO”, “SHR” and “IS”

Ea. Price, ₩

DAIHAN® Precise Shaking Incubator “ThermoStable™ IS-30”, Front Door-type, up to 60°C & 1000ml
With Universal Platform, Fuzzy Control, RS232C Interface for PC, Orbital Motion, 30~250 rpm, 127 Lit
신탄 배양기/인큐베이터, 전면도어 타입, 고정밀 디지털 퍼지제어, Universal Platform 포함

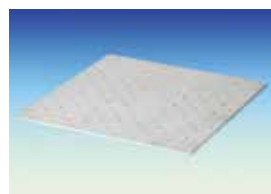


A. “IS-30” R/T $\pm 5^\circ\text{C}$ ~ 60°C
B. “IS-30R” 10°C ~ 60°C Refrigerated



Connection of Temperature Devices with Interface RS232C to a PC Export Recorded Data (Excel Spreadsheet)

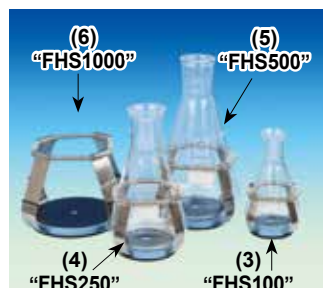
WiseRemote Control Software :
Download from DAIHAN-Sci.com



(1) Universal Platform “SP630” (Included)



(2) Universal Spring Rack Platform “SR530” (Optional)



STS Flask Holder w/Spring Ring (Optional)

- Made in Korea ■ CE Certified ■ PL(Product Liability) Insurance
- with Certificate & Traceability : Controlled by Serial Number, Certificate, Delivery-information, and Traceable Data Base System
- Useful for Biological Cultures under various Temperature
- Patented Jog-Shuttle Control System ■ Stabilized Orbital Motion

- * Precise Temperature Control by Digital Fuzzy Controller, up to 60°C, PT100 Sensor
- * Front Door and Sliding Platform Provides Easy Loading and Handling of Samples
- * RS232C Interface for Monitoring and Controlling with PC.
- * Advanced Shaking Mechanism Provides Quiet Shaking and Precise Speed Control
- * Accommodate Flasks up to 1,000ml * Minimum Noise and No Vibration.
- * Universal Spring Rack for Various Shapes/Size of Flasks (Optional)
- * Automatic Stop of Shaking, Heating and Refrigeration when a Door opens
- * Over Temperature & Over Current Protection and Leakage Breaking.

Specifications & Ordering information

Spec.	Model	A. “ThermoStable™ IS-30”	B. “ThermoStable™ IS-30R” with Refrigerator
Temp. Range		Room Temp. +5°C ~ 60°C	10°C ~ 60°C
Temp. Accuracy & Uniformity		Accuracy : $\pm 0.2^\circ\text{C}$ at 37°C, Uniformity : $\pm 0.5^\circ\text{C}$ at 37°C	
Capacity		127Lit	
Temp. Sensor		PT100 Sensor	
Heater		600 W	800 W
Compressor		None	1/4 HP
Compressor Control		None	Intelligent Control of Refrigerator for preventing Overload of Compressor
Refrigerant		None	CFC-Free(404A) Refrigeration System
Shaking Speed, Stroke & Motion		30 ~ 250 rpm, 25mm, Orbital Motion	
Timer & Alarm		99hr 59min (with Continuous run.), Error status & Timer-end	
Display		Digital LCD with Back-Light Function	
Controller		Digital Fuzzy Controller with Jog-Shuttle Switch (Turn+Push)	
Platform(Included) & Capacity for Optional Flask Holders		Universal Platform for Various Shapes & Sizes of Flasks Capacity : 35 ea Flask Holders for 50~100ml Flask 16 ea Flask Holders for 200~300ml Flask 12 ea Flask Holders for 500~1,000ml Flask	
Safety Circuit		Over Temp./ Current Protector, Leakage Breaker	
Material		Internal : Stainless-steel (# 304), External : Powder Coated steel	
Dimension		Internal : 570 × 465 × h470mm, External : 916 × 730 × h683mm	
Packing Size (w × d × h) (mm)		1,050 × 900 × h900mm	
& Gross Weight		146 kg	156 kg
Power Consumption		600 W	1.3 kW
Electrical Reqts.		1 Phase, AC 120 V, 60 Hz or AC 230 V, 50 / 60 Hz	

Cat. No.	60Hz	230V	DH.WIS00230	DH.WIS01230
		120V	DH.WIS00130	DH.WIS01130
	50Hz	230V	DH.WIS00530	DH.WIS01530
		120V	DH.WIS00430	DH.WIS01430

Price, Each. ₩

* Other Specifications are available upon Customer's Request.

※ 운임 약 ₩ 40,000 별도!

C. Validation (IQ, OQ) Service Shaking Incubator

DH.WIS33010 Validation Service(IQ, OQ), with “IS-30”, 60Hz, “ISV3010”
DH.WIS33011 , with “IS-30R”, 60Hz, “ISV3011”

Ea. Price, ₩

Optional Spring Rack Platform and Stainless-steel Flask Holder(w/Spring Ring)

Ea. Price, ₩

- DH.WIS504630 (1) Universal Platform, 485 × 405mm, “SP630”, for “IS-30(R)”
DH.WIS504530 (2) Universal Spring Rack, 498 × 408 × h135mm, “SR530”, for “IS-30(R)”
DH.WIS600100 (3) STS Wire Spring Flask Holder, for 100ml Flask, “FHS100”, for “SHO”, “SHR” and “IS”
DH.WIS600250 (4) , for 250ml Flask, “FHS250”, for “SHO”, “SHR” and “IS”
DH.WIS600500 (5) , for 500ml Flask, “FHS500”, for “SHO”, “SHR” and “IS”
DH.WIS601000 (6) , for 1000ml Flask, “FHS1000”, for “SHO”, “SHR” and “IS”

DAIHAN® Precise Shaking Incubator “ThermoStable™ IS-10”, Top Door-type, Orbital Motion, up to 60°C, $\pm 0.2^\circ\text{C}$ With Universal Platform, Fuzzy Control, with or without illuminators & Recorder, 30~250 rpm, with Certi. & Traceability
 진탕 배양기/인큐베이터, 탑 도어 타입, 고정밀 디지털 퍼지 제어, Universal Platform 포함

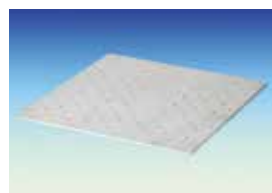


A. Room Temp. +5°C~60°C, With Universal Platform
 “ThermoStable™ IS-10”



Connection of Temperature Devices with Interface RS232C to a PC Export Recorded Data (Excel Spreadsheet)

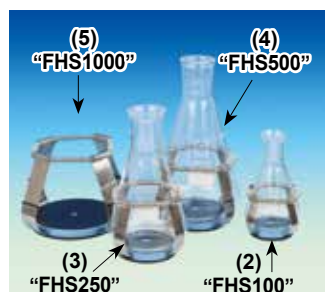
WiseRemote Control Software :
 Download from DAIHAN-Sci.com



(1) Universal Platform
 “SP610” (Included)



(6) Universal Spring Rack
 Platform “SR510” (Optional)



STS Flask Holder w/Spring Ring
 (Optional)

Optional Spring Rack Platform/Recorder/Stainless-steel Flask Holder(with Spring Ring)

- DH.WIS504610** (1) Spare Universal Platform, w688×h648mm, “SP610”, Flask Holder Capacity ; 68ea for 50~100ml Flask, 36ea for 200~300ml Flask, 21ea for 500~1000ml Flask
- DH.WIS600100** (2) STS Wire Spring Flask Holder, for 100ml Flask , “FHS100”
- DH.WIS600250** (3) , for 250ml Flask , “FHS250”
- DH.WIS600500** (4) , for 500ml Flask , “FHS500”
- DH.WIS601000** (5) , for 1000ml Flask, “FHS1000”
- DH.WIS504510** (6) Universal Spring Rack, w693×d653×h135mm, “SR510”
- DH.WTH05100** (7) Temperature Recorder, with 6ea Ribbon Cassette & Chart Paper LED, 6ch/10sec, 144×144×h233mm, “WTH5105”
- DH.WTH05108** Ribbon Cassette, 6 Colors, “WTH5108”
- DH.WTH05105** Chart Paper, w100mm×L10m, 33 Days, “WTH5105”

- Made in Korea ■ CE Certified ■ PL(Product Liability) Insurance
- with Certificate & Traceability : Controlled by Serial Number, Certificate, Delivery-information, and Traceable Data Base System
- Useful for Biological Cultures under various Temperature
- Patented Jog-Shuttle Control System

- * Precise Temperature Control by Digital Fuzzy Controller, up to 60°C
- * Digital LCD with Back-Light Function
- * Minimum Noise and No Vibration
- * Advanced Shaking Mechanism Provides Quiet Shaking and Precise Speed Control
- * Automatic Stop of Shaking, Heating and Refrigeration when a Door opens
- * Intelligent Control of Refrigerator for preventing Overload of Compressor (IS-10R/IS10RL)
- * RS232C Interface for Monitoring and Controlling with PC

Specifications & Ordering information

Spec.	Model	A. IS-10	B. IS-10R with Refrigerator	C. IS-10RL Illumination
Temp. Range		R/T +5℃ ~ 60℃	10℃ ~ 60℃	
Temp. Accuracy & Uniformity		Accuracy : ±0.2℃ at 37℃, Uniformity : ±0.5℃ at 37℃		
Capacity		229Lit		
Temp. Sensor		PT100 Sensor		
Heater		800 W	1 kW	1.2 kW
Compressor		None	1/3HP	
Refrigerant		CFC-Free (404A) Refrigeration System		
Shaking Speed & Stroke		30 ~ 250 rpm, 25mm Orbital Motion		
Timer & Alarm		99hr 59min (with Continuous run.), Error status & Timer-end		
Controller		Digital Fuzzy Controller with Jog-Shuttle Switch (Turn+Push)		
Illumination System		None		FPL 55W×4ea
Room Lamp		Krypton Lamp, 60W		None
Platform(Included)		Universal Platform for Various Shapes & Sizes of Flasks		
Safety Circuit		Over Temp./ Current Protector, Leakage Breaker, Sensor Error Detector		
Material		Internal : Stainless-steel (# 304), External : Powder Coated steel		
Dimension		Internal : 750×720×h400mm, External : 1,065×900×h980mm		
Packing Size (w×d×h) (mm) & Gross Weight		1,220×1,060×h1,200mm		
		231 kg	238 kg	238 kg
Power Consumption		800 W	1.8 kW	2.1 kW
Electrical Reqts.		1 Phase, AC 120 V, 60 Hz or AC 230 V, 50 / 60 Hz		

Cat. No.	60Hz	230V	DH.WIS00210	DH.WIS04210	DH.WIS05210
		120V	DH.WIS00110	DH.WIS04110	DH.WIS05110
	50Hz	230V	DH.WIS00510	DH.WIS04510	DH.WIS05510
		120V	DH.WIS00410	DH.WIS04410	DH.WIS05410

Price, Each. ₩

* Other Specifications are available upon Customer's Request.

※ 운임 약 ₩ 40,000별도!

D. Validation (IQ, OQ) Service Shaking Incubator

- DH.WIS31010** Validation Service(IQ, OQ), with “ThermoStable IS-10”, 60Hz
- DH.WIS31011** , with “ThermoStable IS-10R”, 60Hz
- DH.WIS31012** , with “ThermoStable IS-10RL”, 60Hz

Ea. Price, ₩

Ea. Price, ₩

DAIHAN® Multi-Stack Refrigerated Shaking Incubator “WIS-ML”, Orbital Motion, with 2 & 4 Universal Platform With Digital Fuzzy Control, 2 or 4 Independent Shaking Speed Control, 10~60°C, 30~250 rpm, 2 & 4 Stack 대형 멀티 진탕 배양기, 고정밀 디지털 퍼지 제어, 2 & 4 Universal Platform 포함



B. Multi-Stack Refrigerated Shaking Incubator with 4 Universal Platform “WIS-ML04”

- Made in Korea ■ CE Certified ■ PL(Product Liability) Insurance
- with Certificate & Traceability : Controlled by Serial Number, Certificate, Delivery-information, and Traceable Data Base System
- Excellent for Multi-use and wide range of Sample Testing under various Temperature
- Patented Jog-Shuttle Control System
- * Digital Fuzzy Control System Implementing Superior Temperature Accuracy
- * Intelligent Control of Refrigerator for Preventing Overload of Compressor
- * Advanced Shaking Mechanism provides Quiet Shaking and Precise Speed Control
- * Space Saving Design for Large Quantity Samples with 2 or 4 Independent Shaking Speed Controller
- * Automatic Stop of Shaking, Heating and Refrigeration when the Door is Opened
- * RS232C Interface for Monitoring and Controlling with PC * Including Universal Platform
- * Over Temperature & Over Current Protection and Sensor Error Detection
- * Universal Spring Rack for Various Shapes/Sizes of Flasks (Optional)

Specifications & Ordering information

※ 운임 약 ₩ 95,000별도!

Spec.	Model	A. “WIS-ML02” 2 Shaking Platform	B. “WIS-ML04” 4 Shaking Platform
Shaking Stacks		2 Stack	4 Stack
Temp. Range & Accuracy		10°C ~ 60°C, ±0.2°C at 37°C	
Temp. Uniformity & Sensor		±1.0°C at 37°C, PT100 Sensor	
Heater		1.5 kW	1.8 kW
Compressor		1/2HP	3/4HP
Compressor Control		Intelligent Control of Refrigerator for Preventing Overload of Compressor	
Refrigerant		CFC-Free(404A) Refrigeration System	
Shaking Speed & Stroke		30 ~ 250 rpm, 25mm Orbital Motion	
Timer & Alarm		99hr 59min (with Continuous run.), Error status & Timer-end	
Display		Digital LCD with Back-Light Function	
Controller		Digital Fuzzy Controller with Jog-Shuttle Switch (Turn+Push)	
Door		Magnetic Packing Door with Pair Glass	
Plate Size		w700×d600mm	
Platform(Included) & Capacity for Optional Flask Holders		Universal Platform for Various Shapes & Sizes of Flasks Capacity : 68 ea Flask Holder, for 50~100ml Flask 36 ea Flask Holder, for 200~300ml Flask 21 ea Flask Holder, for 500~1,000ml Flask	
Safety Circuit		Over Temp./ Current Protector, Sensor Error Detector	
Material		Internal : Stainless-steel (# 304), External : Powder Coated steel	
Dimension (w×d×h)	Internal (mm)	700×700×1,100	700×700×1,790
	External (mm)	1,290×850×1,445	1,290×850×2,125
Packing Size (w×d×h) (mm)		1,500×1,200×1,750	1,500×1,200×2,350
& Gross Weight		397 kg	555 kg
Power Consumption		2.4 kW	3.2 kW
Electrical Reqts.		1 Phase, AC 120V, 60Hz or AC 230V, 50/60Hz	1 Phase AC 120V, 60Hz or AC 230V, 50/60Hz or 3 Phase
Cat. No.	230V	DH.WIS05002	DH.WIS05004
	120V	DH.WIS05102	DH.WIS05104
	3Phase	-	DH.WIS03004
Price, Each. ₩			

* Other Specifications are available upon Customer's Request.

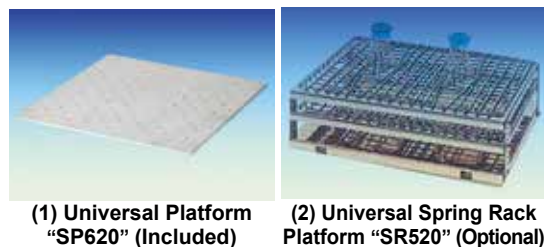
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C. Validation (IQ, OQ) Service Shaking Incubator

DH.WIS35002 Validation Service(IQ, OQ), with “WIS-ML02”
DH.WIS35004 , with “WIS-ML04”

Ea. Price, ₩

Ea. Price, ₩



(1) Universal Platform “SP620” (Included)

(2) Universal Spring Rack Platform “SR520” (Optional)



STS Flask Holder w/Spring Ring (Optional)

Optional Spring Rack Platform and Stainless-steel Flask Holder(with Spring Ring)

- DH.WIS504620 (1) Universal Platform, w645×h645mm, “SP620”, for “WIS-ML02/04”, Included
- DH.WIS504520 (2) Universal Spring Rack, w653×d653×h135mm, “SR520”, for “WIS-ML02/04”
- DH.WIS600100 (3) STS Wire Spring Flask Holder, for 100ml Flask, “FHS100”
- DH.WIS600250 (4) , for 250ml Flask, “FHS250”
- DH.WIS600500 (5) , for 500ml Flask, “FHS500”
- DH.WIS601000 (6) , for 1000ml Flask, “FHS1000”

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